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ABSTRACT

The program of the third annual Conference of University Administrators (CUA) was divided into six themes, each consisting of four or five coordinated discussions on aspects of the theme. The themes were: the future of higher education in the United Kingdom; academic planning; the effect of legislation on personnel administration; relations between administrators and their clients; the use of computers in university administration; and accounting in an inflationary era. Ten selected papers and five selected reports on discussions from the conference are included along with a complete list of conference topics and papers. (JMF)

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CUA NEWCASTLE

1976

PROCEEDINGS

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CONFERENCE OF UNIVERSITY ADMINISTRATORS (CUA)

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- I Full list of topics included in the 1976 Conference Programme
- II List of Papers received but not included in this volume

NOTE BY THE EDITOR

The third Annual Conference of University Administrators (CUA) was held at the University of Newcastle upon Tyne from 9 - 11 April 1976. Some 450 members took part, together with visitors from overseas and observers from other organisations with similar aims. The programme included a debate on the topic "Administrators are the servants of the Academic Staff", an address by Mr Brian Mac Arthur entitled "Universities : Which Directions Now?" and a comprehensive range of discussion topics. An important innovation was the introduction of the study in depth of 6 Themes, each consisting of four or in some cases five co-ordinated discussions on aspects of the Theme. The Themes were:

- A. The Future of Higher Education in the UK
- B. Academic Planning
- C. The Effect of Legislation on Personnel Administration
- D. Relations Between Administrators and their Clients
- E. The Use of Computers in University Administration
- F. Accounting in an Inflationary Era

A large part of this volume is given over to substantial papers presented as part of the Themes. For reasons of space I have not been able to include all such papers, nor have I found space for some of the reports on discussion groups. However all the papers which I received are listed in an Appendix and readers are invited to contact the authors if they wish to obtain copies.

I would like to thank the authors of the papers which have been included and to assure those whose work is merely referred to in the Appendix that, as we hear so often these downcast days, it is "only a matter of resources".

Emrys Wynn Jones
The University College of Wales
Aberystwyth

CUA OFFICERS 1976

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CONFERENCE PROGRAMME - CUA NEWCASTLE, APRIL 1976

Friday 9 April 1976

1.00 - 2.30 pm	Registration
3.00 - 4.30 pm	Session I (Specialist Groups)
4.30 - 5.00 pm	Tea
5.15 - 6.30 pm	Session II
6.45 - 7.15 pm	Reception at Castle Leazes (by courtesy of the Times Higher Education Supplement)
7.15 - 8.00 pm	Dinner
8.15 - 9.30 pm	Meeting of Branch Correspondents and the Executive Committee

Saturday 10 April 1976

9.15 am onwards	Session II
10.15 - 11.00 am	Coffee
11.15 - 12.45 pm	Annual General Meeting
1.00 - 2.00 pm	Lunch
2.15 - 3.45 pm	Debate on the topic "Administrators are the servants of the academic staff"
	Principal speakers - Professor David Martin, Professor of Sociology at the London School of Economics
	Mr E M Bettenson, Registrar, University of Newcastle upon Tyne
3.45 - 4.15 pm	Tea
4.15 - 5.15 pm	Session IV
5.30 - 6.45 pm	Address by Mr Brian MacArthur "Universities : Which Directions Now?"
8.00 pm	Conference Dinner

Sunday 11 April 1976

9.45 am onwards	Session V
10.45 - 11.15 am	Coffee
11.15 am onwards	Session VI

ANNUAL CONFERENCE - NEWCASTLE 1976A REPORT ON TRAINING SESSIONS

After the success of the training sessions at the Leeds Conference the Training Sub-Committee agreed to organise a similar series of sessions at the 1976 Conference, and following the general organisation of the Conference, the sessions revolved around a common theme - The Conduct of Meetings.

The sessions again used material mainly developed through the Staff Development in Universities programme and Mr L F Evans' work on meetings, with the objective of not only stimulating participants to discuss various aspects of University committee work, but also to develop specific skills such as secretarial duties, minute writing and an awareness of the skills required by a chairman.

There were five sessions, each of which was directed by participants in the Pre- Conference Training Seminar. Douglas Porter, Chairman of the Training Sub-Committee, co-ordinated the exercises in consultation with Ken Kitchen, the CVCP Administrative Training Officer.

ASPECTS OF MEETINGS (Douglas Porter)

Seventeen members participated in this session which was designed to introduce members to various aspects of meetings through two 'pencil and paper' exercises on Barriers to Effective Decision Taking and Ten Aspects of Meetings. Individual responses to the brief questionnaires were discussed in small groups, and then modified in plenary discussion. The use of the questionnaires as check lists when criticising performance in meetings during later exercises was also described.

THE ROLE OF THE SECRETARY (Ken Kitchen)

The aim of this exercise was to describe as fully as possible the duties and responsibility of a University committee secretary and to consider ways in which those duties can be carried out more efficiently. The exercise involved describing the duties and responsibilities as each participant perceived them as a basis for comparing the individually prepared description with one done as a combined effort by the staff of a Registry. Members were asked to cover general information which a secretary needed to know about a committee and the University, and work which needed to be performed before the committee, during the committee and after the committee. Individual and small group responses were then discussed in plenary session.

THE CASE OF RUTH KERWIN (Christine Challis and Peter Hodson)

This exercise was attended by 19 participants and was intended to combine some of the skills and factors covered in the first two sessions, while at the same time introducing members to committee simulation and role playing. It involved watching a brief video-recorded interview with a

difficult student followed by a committee meeting of tutors to discuss the examination performance of the student concerned. Those members not participating in the actual committee simulation acted as observers and were asked to criticise the conduct of the meeting using the check lists developed in the first two sessions.

SENATE IN ACTION (Allan Schofield)

This covered both the sessions on the Sunday morning and involved 17 members. After watching a 35 minute video-recording of an actual Senate meeting, participants, first in small groups and then in plenary session, carried out a series of exercises which involved content analysis and minute writing as well as constructive criticism of the role of the secretary, the conduct of the chairman, the handling of the business under discussion and the general layout and environment of the committee room.

The general reaction to the sessions seems to have been similar to that at Leeds, although the attendance was not as great as in 1975, largely one suspects due to the poor initial publicity which resulted in the preliminary Conference Programme not containing details of either the theme or the individual sessions. Those attending also seemed, on the whole, to be less experienced administrators than at Leeds. The necessarily tight timing of the Conference in general meant that the sessions again often needed to be compressed into a shorter time-scale than is usual or adequate, although most of the exercises can be adapted to overcome this problem.

The sessions did, however, give participants in the Pre-Conference Seminar on *The Organisation, Preparation and Presentation of Training Material for University Administrators* some experience in handling participative training exercises, and this in itself was generally welcomed.

In conclusion, while the 1976 training sessions were perhaps not as successful as in 1975, they obviously continue to meet a need which is not yet being met through the Universities' own training programmes or general courses and workshops and should, for this reason, continue to be a feature of the Annual Conference.

D Porter
Chairman of the Training Sub-Committee

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Topic: Recent and Prospective Developments within the UGC Higher Education System (Part of Theme A)

Contributed by: Professor R A Becher (Sussex)

I make no apologies for the title of this talk - recent and prospective developments within the UK higher education system - both because it is not of my choosing and because a good deal of what I have to say has little direct bearing on it. I doubt if there are many of you who have come all the way to Newcastle to be reminded of what you already know all too well - of the golden days of the Robbins Report and the headlong expansion which followed it - of the founding of the Colleges of Advanced Technology, the creation of the New Universities, of the designation of the Polytechnics and the birth, amid the white heat of Wilson's technological revolution, of the Open University. Nor, I suspect, will you thank a visitor in your midst for peering into the cloudy mists of the future and predicting a more wintry prospect than we have known for many a day.

For my own part, I feel that I have had about enough of very general discussions about higher education. I find philosophical debates about the distinctive purposes of universities and polytechnics, or teleological arguments about the overall goals of the tertiary system, too abstract for my taste. I have neither the expertise to attempt, nor the gullibility to think it worth attempting, any interpretation in everyday language of what the economists tell us about the costs and benefits of degree courses. Nor do I fare much better with those impressive statistical discussions about student flows which so confidently tell us, but so signally fail to tell us correctly, what is going to happen in the next decade.

You will be right to infer from this preamble that my talk will be a relatively brief one: but it will at least be long enough to constitute a serious attempt to persuade you to look at higher education from a different standpoint from the one which very often characterises occasions like this. The trouble with abstractions is that they are so beguiling: present any one of us with a boldly general topic - such as "the future of the universities" - and the natural inclination is to move further and further away from our own individual bases of experience in the hope of discovering a shared generality. I want to reverse that tendency, and to suggest that the only manageable way of dealing with abstract issues is to pin them down in particularities.

I propose, therefore, to look at the micro-structure of higher education rather than its macro-structure - at specific developments in the undergraduate curriculum rather than global trends in national policy. And I want to set myself the task of showing that this approach - a closer attention to the biochemistry of the system, as opposed to its aggregative behaviour - can, in its own particular way, help towards an understanding of how the organism as a whole is evolving.

But in suggesting a possible concentration on the curricular level, I have yet to define a manageable theme. The curriculum is of course wider than simply subject-matter, and could be interpreted to embrace almost everything that happens to the student as a consequence of institutional intent, including selection arrangements, mechanisms for vocational guidance, and systems of academic and pastoral care. So it will be necessary, within this wide range of possible topics, to pick out a limited number to establish my argument.

The two I shall choose are, first, curricular patterns, and second, assessment procedures. These are not only important issues in themselves - they have the added advantage of lying very close to the interface between institutional structures and academic processes. This interface is one to which few people have yet paid adequate regard, though it is easy enough to see why. It marks off the no-man's land which spans the territory of the administrator and that of the practising academic: it is usually the business of both, and thus often of neither.

Before I conclude my introductory comments let me just track down one source of possible misunderstanding. As university administrators, you are by definition concerned with the general welfare of your respective institutions. Your identity is with the university as a whole, not just with one part of it. But most academics have a very different affiliation - namely to the particular teaching group (whether it be subject department, faculty, course team or whatever) of which they are members. From their perspective, as Professor Martin Trow has pointed out, the university may look like little more than a loose federation of these primary units. One might say, fancifully, that they are the molecules from which the complex structure of the organism is built up, in that they represent the level at which a whole range of crucial decisions are taken: decisions about the appointment of staff, the determination of curricula, the allocation of resources, the selection and certification of student, as well as about the everyday business of teaching and research. Accordingly, it makes a certain amount of sense to focus attention on the molecular behaviour of academic institutions as well as on the way they operate as total entities: and indeed, this is what I intended by my reference to an exploration of the biochemistry of the higher education system.

I am asking you, then, to look at higher education through the practising teacher's microscope rather than the national planners' telescope. And the particular specimens to which I would now like to direct your attention are a set of five familiar forms of curricular provision which represent more or less radical departures from what we all accept as the norm of a single-subject three-year honours degree. The first three are fairly long-established variations on this basic pattern: namely broadly-framed professional courses which attempt to put their subject-matter in its social context; joint or combined honours; and pyramid-shaped curricula (such as those typified by the older Scottish universities, and by Keele's Foundation Year arrangements). The remaining two-unit or modular course structures and interdisciplinary courses - are newer arrivals, and often regarded with greater suspicion.

It is I think worth looking more closely at how such curricular patterns relate to the organisational structures in which they are embedded. Institutions of higher education - apart from some of the new universities and a few of the polytechnics - are based on a more-or-less standard framework of specialist departments into which the conventional single-subject curriculum fits very neatly. Tensions almost inevitably arise, however, when any attempt is made to deviate from the natural and obvious form of curricular provision within this departmental structure. Nevertheless, for a whole variety of reasons, comfortable tradition continues to be challenged: the process of teaching and learning refuses to be contained by the forms of academic organisation laid down by precedent or precept.

What types of problem arise when there is a mismatch between structure and process; between the kinds of courses the teachers want to provide and the form which the architecture of their institution happens to take? The relationship of the one with the other - which also reflects the relationship between the business of the administrator and that of the academic - can perhaps best be understood in terms of the tensions between law and morality in a given society. The law, as we are often uncomfortably aware, limits the scope of what is counted as permissible behaviour, but cannot usually promote the actual practice of the ideal which it defines. It could, until recently, proscribe homosexuality without eliminating homosexuals. And as we also know, the space law and the prevailing moral code can from time to time get badly out of phase. When this happens, it is the law which has to change if it wants to avoid being regarded as an ass.

University administration is in some respects analogous with the workings of the Law Commission. Just as the conscientious Law Commissioner is concerned to modify current legislation from time to time to reflect shifts in moral practice and moral values, so the conscientious university administrator must be concerned to modify academic regulations and organisational structures to accommodate widespread and apparently lasting changes in the ways in which curricula are conceptualised.

Let us stay with the analogy a little longer, and try to see the traditional single-subject degree as corresponding with the nuclear family, that crumbling cornerstone (so both moralists and reformers would have us believe) of Western society. Matched against this, the five deviant curricular patterns which we looked at earlier would constitute very different types of challenge to the established order. The broader professional courses - an engineering degree with a substantial element of economics, a medical degree with a noticeable emphasis on community medicine, or a law degree with overtones of social science - would barely question the status quo. Their advent would be roughly equivalent to substituting an extended for a nuclear family as the norm. Joint honours programmes would pose rather more of a threat, but not a very radical one. The assumptions which they embody are traditional ones, but the rules are stretched: bigamy is substituted for monogamy in a legitimised ménage à trois. Again, the pyramid structure of multi-subject first years leading to increasingly specialised courses in the subsequent years could be represented as a mildly unconventional homage to traditional mores - perhaps a public sanction of the fact that the young must have their fling before they settle down to the serious business of matrimony and procreation.

However, it is when we turn to the two newest arrivals on the curricular scene that the real threat to public propriety is laid bare. Unit and modular courses, though based on the vestiges of a departmental structure, play havoc with it in a far more thoroughgoing way than joint honours programmes - those licensed bigamists of the curricular world - would ever dream of doing. One is irresistibly drawn to a comparison with the endemic vice of the modern middle-class suburb, described in characteristically inelegant and chauvinistic terms as wife-swapping. The last of the five groups, interdisciplinary degrees, come out worst of all in the catalogue of comparisons. While all the others at least recognise the paradigmatic pretensions of the single-subject degree, interdisciplinary courses repudiate its whole rationale. Their most obvious counterpart, in undermining the very notion of the nuclear family, is the hippy commune. What, then, is the higher education system to do in the face of these departures from the established order? Pursuing the legal analogy still further, is it to suppress them (along the lines of the Trade Description Act) by more punitive laws for disciplinary infidelity? Is it to continue, as it does now, to wink at them uneasily (as if they were breaches of the thirty mile an hour speed limit) while maintaining the traditional single-subject facade? Or is it to change the regulations to accommodate to the reality of practice (as in the case of abortion law reform)?

The diverse answers which are being given to these questions underline the fact that what we call 'the higher education system' is itself a loose federation of very independent institutions - just as each institution can be seen as a federation of independent primary units. The reactions have in practice varied remarkably from one instance to another. For example, some of the larger and more senior redbrick universities have condoned bigamy in the form of joint honours courses for some years, but have resolutely set their faces against the looser wife-swapping practices of unit course structures. A number of the new universities have made a special feature of the communal practice of interdisciplinarity, but by the same token have rejected pyramidal schemes. The science schools of London and Southampton Universities, together with various polytechnics, have pinned their colours to the mast of modular degrees; and broadly-based professional courses crop up in an unpredictable variety of places.

How far individual universities and polytechnics take such innovations seriously can be measured by the extent to which they are prepared to modify the traditional forms of departmental structure. Except in the case of a completely new institution this is of course much more easily said than done. It was one thing for the founding fathers of Sussex and East Anglia to promote interdisciplinary courses by setting up broad schools of study rather than conventional subject departments; it would be quite another to expect an established institution such as the University of Birmingham to accommodate itself to teaching, say, a degree programme in International Relations. I choose this example among many because it has been interestingly documented by Professor D R Wightman. His case-study gives a detailed analysis of the negotiations which ultimately led to the creation of a new element alongside the existing departments at Birmingham, in the form of a free standing School of International Studies with its own head and small nucleus of staff, but depending largely on the teaching provided by its associated departments. As Professor Wightman wryly notes, the matter had ultimately to be settled at Senate rather than Faculty level: the exercise convincingly demonstrated how inflexible the machinery of academic planning could be. "None of the Faculties" he writes "seriously questioned the academic merits of the scheme; they simply could not digest a horizontal concept which cut across their boundaries.

What the University lacked ... was any mechanism for receiving and evaluating inter-Faculty proposals that amounted to more than a combined degree between two fields of study".

Somewhat different problems arise with the other species of interloper in the academic family, unit and modular degree schemes. Where these schemes are limited in their range, and affect only one sector of the institution's work, there may be little trouble, apart from the occasional border dispute between one department and another. Cognate departments are already used to working within a federal faculty structure - as long as they are all prepared to keep more or less to the agreed rules, and especially to avoid the overt poaching of other departments' students, there may be no need to go through the painful upheaval of management reorganisation. But where a more ambitious, institution-wide pattern of modules is proposed, as at Hatfield or the City Polytechnic, change seems to be almost inevitable. Timetables and student admissions have to be centralised; the departments begin to lose many of their traditional functions. In some cases they are being replaced by course teams as the basic academic grouping, as in the Open University; in other cases - such as Warwick or Thames Polytechnic - the preferred solution may be some form of matrix structure, with the staff's professional and research interests representing one set of elements and their teaching commitments the other.

All this is only an elaboration of the basic point I have been concerned to make - that as curricular patterns become more varied, and depart from the simple formula of the single-subject degree, so administrative structures are placed under stress. If the curriculum becomes fragmented, as in unit and modular schemes, the tendency is to reduce the power of departments by fragmenting them as well, into a series of course teams of matrix-based groups. If the curriculum becomes integrated, as in interdisciplinary programmes, the tendency is again to reduce the power of departments, but this time by integrating them into broader schools of study. What seems obvious enough is that academic legitimisation of new types of curricula demands a good deal more than the mere approval of a new degree title. It calls for separate budgetary headings, a distinct territorial identity, a group of staff with a voice in Senate, some form of professional promotion ladder, and a whole lot more besides.

The interplay between forms of curriculum and forms of administration offers one instance of my overall theme - that is, the symbiosis of process with structure in higher education. I would now like to turn your attention to a different example of this relationship, as seen in the all-too-familiar operations of the machinery of assessment. Here we are forsaking the patrician domain of constitutional law for the more plebian realms of commercial law. I say this because it is now pretty well documented that marks towards degree assessment are as much the basic currency of students as research publications are the basic currency of academic staff, or undergraduate numbers the basic currency of subject departments.

Virtually every student comes into higher education hoping or expecting to get a degree: he or she is therefore strongly influenced by whatever is perceived to earn examination credit. This fact gives the academic establishment much of its strength, because it is usually in a position to apply sanctions when faced with behaviour which is unacceptable within the framework of the relevant subject area. Indeed, the dominating effect

of assessment is wider than this. The sociologists of knowledge, led into the attack by Michael F D Young, have branded assessment as a powerful mechanism of social control - the means by which the taxpayer, the politician and the employer try to ensure that they are getting proper value for the money they invest in the process and in the products of higher education.

Against this background it is scarcely surprising that changes in assessment regulations and practices can be shown to have all kinds of repercussions on teaching and learning, and that failures to make such changes can be demonstrated as having inhibiting effects on curricular innovation. Departures from the standard three-hour unseen essay paper are nowadays many and various, and each opens up the promise of some new form of relationship between students and staff. In a less than perfect world, only a few such potentialities are realised in practice: but there are nevertheless plenty of significant cases to quote from.

One of the more fundamental shifts of emphasis in assessment is from comparability to individuality: and this brings in its train a host of administrative as well as educational consequences. What the change amounts to is a readiness, in part at least, to replace the uniformly imposed tasks of the finals examination with personally-chosen assignments - with major third-year projects in a growing catalogue of science and engineering degrees, and with extended essays and dissertations in an increasing number of arts and social science courses. The conservatives, understandably, repudiate this trend, pointing out that unseen papers are more reliable in comparing like with like and more trustworthy in maintaining proper academic standards. The progressives respond that it is educationally sounder to judge every individual on his or her merits than against some artificially constructed normal distribution curve, and that in a realistic age it is wiser to regard standards as an ideal to aim at rather than as a reality to be achieved.

As it happens, the principle of individual student choice of assessment task is not in the least new: it underpins the whole well-established and well-regarded structure of higher degrees. Every doctoral candidate is not merely encouraged but positively required to select a unique thesis topic: and yet no one seriously questions the comparability of one post-graduate award with another. Seen in this light, the trend I have referred to in undergraduate assessment amounts to nothing more sinister than moving down to the undergraduate level a practice already familiar at the stage above it. The substitution of a sizeable piece of individual work for the common ordeal of an unseen essay paper is in any case - as I have already implied - a partial one in most institutions. Academics are generally cautious enough to hedge their bets.

There are, however, a few individual departments in which the shift has been more radical: and here the result has usually been to alter in a fundamental way the relationship between teachers and taught. Such seems to be the case, for example, in the Department of German at Warwick University, where the whole pattern of the course is based on a series of long essays which the students plan and prepare under tutorial supervision. These essays - which are 're-worked' and polished in much the same way as a postgraduate thesis - form the central core of the assessment system. In consequence, the students come to regard the staff of the department as their natural allies rather than as their formal judges:

and their motivation and degree of involvement is reported to be unusually high. The School of Independent Studies at Lancaster exhibits some of the same features: here, students are able to concentrate, in their second and third years, more-or-less exclusively on a single topic of their own choosing, and to produce a 'mini-thesis' which is assessed in the same way as a fully-fledged masters' or doctors' dissertation would be.

Another revealing example is provided by the degree programme in Medieval English Literature at Exeter University. The course is interesting in a whole variety of ways, but the one most relevant to my purpose is that it is divided into two main components. The first, based on the detailed study of literary texts, is conventionally assessed by three-hour essay papers. The second, in contrast, which deals with the general development of the medieval arts, requires students to submit at the end of their third year a folder of the work they have done which they believe to be indicative of their capabilities: there is no written examination or other form of assessment for this part of the programme. Let me simply repeat for you the relevant comments of one member of the staff and of two postgraduate student who completed the course last year. The staff member remarked that: "The students put a great deal of work into compiling their folders - I found them almost shocking in their quality". The first postgraduate I interviewed said: "As a mature student, I didn't have a good examination technique. By far the most valuable part of the course, as far as I was concerned, was the work I did for myself and put into my folder for assessment: I got more out of that than I did from all the rest of the course." The second was even more explicit. She commented that the folder assumed an importance much greater than the other assessment demands. "It was the thing I judged myself on: I knew the exam would bear no relation to what I could really achieve. A polished piece of work could obviously give a far more accurate reflection of my capabilities. So that was what I concentrated on."

The notion of giving students a sense of personal possession about the work they do for assessment is a powerful one. It can clearly generate a high level of motivation; but this may be at a high cost in staff responsibility. The teacher, in such a system, has to tread a delicate balance between helping his pupils too much and destroying the relationship of trust by appearing ultimately as a harsh judge in his effort to maintain proper levels of scholarship. The sense of responsibility is perhaps even greater where the assessment procedure allows a certain element of negotiation of marks between staff and students, as in the case of the biology and environmental science courses at the University of East Anglia. The rationale behind this particular innovation is clear enough. It is that any university graduates worth their salt must ultimately find themselves in jobs where they have to assess their own merits. Given that this is the case, the sooner they learn to do so the better: and what more appropriate way could be devised than inviting them to propose grades for their own work and to argue these out with the staff concerned?

By this time you will probably be beginning to ask yourselves what the question of student assessment has to do with academic structure. The connection is, I suggest, a closer one than might appear at first sight - examinations, and the alternatives to them, lie neatly on the borderline between the process and the structure of higher education. The particular content of what students have to do to establish their academic maturity is very much the professional province of their teachers. It would be unthinkable for members of the mathematics department to have any say in determining the graduation criteria for sociology students: any necessary monitoring of assessment procedures is left to the external examiners, who are invariably fellow-professionals from the outside world. But the form which the rites of initiation take is the proper concern of the institution as a whole. It brings into play those powerful trump cards of credibility and currency. Any degree course which appears to call for too radical a departure from the accepted norms is suspect both because it may earn its parent university or polytechnic a dubious reputation, and because it tends to undermine the value of other, more traditional qualifications within that same university or polytechnic ("you only have to be able to sign your name to earn a degree at X - they give them away like green shield stamps").

External politics, then, tend to play a powerful part in determining what forms of assessment are legitimate and what are not: questions about what kind of image the institution wants to have are too important to be left to the whims of any one sectional group. This is not to say, however, that internal politics have no bearing on the issue. There is always a question mark about whether students in department A, if allowed to participate in some significant innovation, will not contaminate those in department B, and so give rise to a demand which the staff in the latter department find totally unacceptable.

Let me give a couple of examples to illustrate this particular process in action. The Department of Sociology at Keele University instituted, three years ago, a radical change in its whole pattern of teaching and learning. It substituted for the previous programme of lectures and tutorials a system of 'workshops' which students could join on an optional basis and which involved a high degree of self-directed study in relatively small seminar groups. The natural corollary of this mode of working would have been an assessment scheme based largely on work done during the course, including the products of group projects. In fact, however, the students concerned are required to take entirely conventional examination papers - to the obvious detriment both of the course itself and of the individuals on it - because a change of assessment procedure did not appear to be acceptable at senate level. There must be many groups of academics who share, with their counterparts at Keele, the notion that academic freedom means liberty within carefully-circumscribed limits, rather than a licence to do anything adventurous.

My second example concerns the faculty of social sciences in a university which should perhaps remain anonymous. Here the trouble arose from the fact that the first-year course was a common one between the departments of politics, economics and sociology. The students had to choose, on the basis of their broad first-year course, which subject to specialise in during their second and third years. With appropriate political acumen the politics department had managed, while the economists and sociologists were concentrating on other things, to introduce a summer term project into their assessment system in the place of one of their two written papers. The predictable result was that the students spent far more of their time on their project in politics than on anything else - they skimmed on their commitments to the other two subjects, and this was claimed by the injured parties in sociology and economics to affect their choice of subsequent specialisation as well. Here was a case in which an apparently minor and innocent change in assessment arrangements significantly upset the balance of power within the institution. The structural consequence was that senate was urged to reconsider its earlier ruling that dissertations and projects could be substituted for written papers up to a certain proportion of the whole. Many of you may recall the recent, somewhat comparable, case of the Cambridge Economics Faculty, which was prevented from abolishing classifications in Part I of the Tripos and from substituting long essays for written papers in Part II, even though the majority of its staff and students favoured this. The General Board's argument against the change was straightforward enough: other Faculties who wanted to maintain the status quo would soon be under pressure to institute comparable reforms.

The fact that I have cited these negative cases - in which assessment regulations have been used to inhibit or contain changes in teaching and learning - should not be taken as implying that the transaction is always one-way. A very striking counter-example is provided by the announcement, a few years ago, by the Academic Board of the University of Wales to its constituent colleges that in no case would it be acceptable for forms of assessment other than three-hour examinations to count for more than 50 percent towards the final degree classification. This was perhaps the first time that some of the departments affected by the regulation had even heard about different modes of assessment: but once their curiosity was aroused, they began to experiment with a considerable variety of alternatives to the traditional finals papers. In this instance, a ruling which was apparently prohibitive in its effect created a climate permissive of all kinds of innovation.

What I have so far tried to suggest is that changes in the content or process of higher education significantly affect and are significantly affected by changes in its organisational context or administrative structure. The relationship is not a simple and direct one, any more than the connection between morality and the law is simple and direct: but it is none the less real for that. The two topics I have chosen to illustrate the point - developments in curricular patterns and innovations in assessment procedures - are not the only possible examples: and indeed there is a much more obvious one that I might have offered.

The issue which immediately comes to mind when one looks at the inter-connection between administrators and academics is the allocation of resources: how the institution's total budget is best carved up to maintain the basic functions of teaching, learning and research and to leave some room for growth for the unexpected but worthwhile innovation. There are two main reasons why I have not ventured to elaborate on this particular theme. The first is that it is already very familiar to most of you - indeed, I am sure you will have explored it, both individually and collectively, in far greater depth than I have ever done. The second is that, as an issue in higher education it will almost certainly diminish in significance during the lean years ahead.

And this brings me back belatedly to my prescribed task, which requires me to say something at least about 'prospective developments'. I take this phrase to refer to changes in current practice rather than straight forward continuations of it: in other words, to new variations in the texture of academic life. The implied emphasis on innovation is, I would maintain, a justifiable one. New ideas are essential for the healthy survival of any institution which aspires to stay in business in higher education. During the past decade of growth and expansion, the obvious source of support for academic innovation was to be found in well-designed budgetary procedures which ensured that enough money was always kept aside for deserving proposals. But all of us know well enough that that pattern will not so easily be continued in the decade we have entered now. It is one thing to make wise and imaginative use of marginal resources when there are margins to spare: it is quite another to conjure up contingency funds when inescapable existing commitments take up virtually the whole of the budget.

It need not follow that there is no longer any room left for the exercise of creative flair in academic administration. True, the task may well be more difficult in the future than it has been in the recent past; and it will almost certainly call for a different strategy. I hope that something of what I have said may suggest such a strategy - for the implication of the two sets of innovative trends which I singled out for discussion is that a great deal can be achieved simply by ensuring that structural arrangements reflect academic aspirations. The sensitive review and adjustment of the ways in which institutions of higher education are organised is of course a lot less expensive in hard cash than the setting up of special budgetary arrangements: but it may well demand a commensurate effort in terms of the exercise of informed judgement.

I remarked earlier that reforms in managerial structures can only permit and never directly generate change. I should, however, want to add that they can - as my example of the assessment regulations of the University of Wales suggests - act as very potent catalysts. What may well be needed from you in the next phase of university development is an even closer concern with what goes on within the semi-private lives of individual departments and a slightly lesser concern with the semi-public life of the institution as a whole. But to say this is of course only to betray once again the prejudice I acknowledged at the beginning of this paper, for studies of the microstructure rather than the macrostructure of higher education - for its biochemistry rather than its external behaviour. Whether it has proved a justifiable prejudice must now be for you rather than me to decide.

Topic: Crumbling University Autonomy : Melancholy and Urgent Animadversions upon Advancing Statism. (Part of Theme A)

Contributed by: M G de St V Atkins (Lancaster)

University autonomy is atomic, in the primary sense of the word in that it is impartible, in the secondary sense in that it empowers and is the corpuscular energy that vivifies academic activity. It is the indivisible nature of that autonomy that needs to be stressed for whenever the autonomy is eroded, whether by the misguided benevolence of private wellwishers or the high-oscillatory do-better interference of government, the primacy of educational considerations in educational decisions is overthrown. This is not to suggest, as Ian Robinson and others have asserted, that education is autotelic but only that, although the ends of university education (as of all education) are the satisfaction of a public need, the way in which that need is satisfied can effectively be decided only by those who are familiar not only with the need but also with the possible means of satisfying it - at the level of university education, the universities.

The intrusion of private benevolence is the older and the less serious irruption. The bequests that inserted founder's kin into collegiate government, that invested low churchman with a scholarly aura - or even transported fellsiders and dalesman into the Queen's College, Oxford, and Christ's College, Cambridge, did no harm; the intention of the benefactors was realised, and by particular enlargements education was extended through classes and regions even as the syllabus of study itself spread downwards and outwards. The second great wave of private benefaction, channelled through municipal corporations into the great civic universities, did little more than remind the universities that, although they stood as inviolate citadels high above the plain of daily insignificance, they were inviolate and were citadels because they stood for the preservation of society and society's treasure of experience and achievement. The representatives of the endowing bodies, alderman, cleric, merchant, sat generally in silent acquiescence as the councils of the universities deliberated on matters that touched academic development; and, if one should speak, his learned and gowned fellow-councillors required few words to reassert the supremacy of reasoned (if not reasonable) agreement which, rather than the acquisition of truth, the professors had so long regarded as the hall-mark of professorial attainment. As long as the dons, pre-eminent in their own profession through their expository abilities, still sat side by side with them in the chambers, the worthy burghers presented no real challenge to university autonomy.

If the nation was an impotent sleeping partner in the business, providing capital without any real consideration and ready to accept seats on the board if it desired a guarantee that its donations were not ill-used, the state has made deeper inroads into university autonomy with fewer obvious institutional safeguards. In many countries where the state underwrites the universities no more fully, it requires in return the power to nominate

to governing councils. In the United Kingdom it is to the boards of nationalised industries and not to membership of the councils and courts of universities that politicians, so unsuccessful that even the house of lords is barred to them, make their way. Notwithstanding, the state bestows its bounty (which is its way of regarding its transfer of money from the pockets of taxpayers to chosen agencies of expenditure) with a surer safeguard, the University Grants' Committee which the universities continue to regard as an adequate barrier between them and the state, although every speck of evidence reveals that the force of governmental decree is barely mitigated and never deflected by the committee. Where and when and to what standards the universities build, what they will teach, how they will pretend to govern themselves: in effect these are the things that unimaginative civil servants and malignant ministers decide. So far they do not control individual admissions according to political acceptability, although they seek to control classes of admission by regulating fees for tuition and, through the establishment of bodies such as the Schools' Council, they promote policies that will nullify attempts by universities to discriminate between scholars and slugs. So far they have not attempted to institute a single system of degree examination, although the institution of the Council for National Academic Awards and the propaganda of the Schools' Council in favour of a single examination board for school leavers, give some foretaste of the table being prepared. To regard British universities as self-governing institutions is to concentrate one's gaze wholly upon the formal instruments of government.

The formal relations between university and nation and university and state have also been modified by the acts of the universities themselves and by the paralysing bonds that co-operative linkages always reveal themselves to be. To an audience of administrators (even those so unfamiliar with physical principles that they could not have predicted and could not now predict the disastrous outcome from the nature of the arrangement) the inertia that the establishment of the Universities' Central Council on Admissions introduced into the system of admissions is obvious: the cost, the bureaucracy, the inflexibility, the impersonality, the system that makes it possible to dispense with interviews, indeed with rational selection itself. To those who were sensitive enough to recognise local requirements and local practices, the Universities Committee for Non-Teaching Staffs must inevitably become the suicidal instrument that it has now shewn itself to be. The universities that handed to their vice-chancellors authority that empowered the Committee of Vice-Chancellors and Principals of the United Kingdoms powers to speak, to decide and to negotiate for the institutions should not have been surprised to find that outside bodies, particularly the state, found it easier and more satisfying to consult with the committee than to consult with the universities singly and to negotiate with the University Authorities' Panel (a satellite of the committee) than with a multiplicity of employers who suffered from the devastating strength of also being corporations of employees. Even before the Industrial Relations Act, 1971, made it possible for local branches of the Association of University Teachers to obtain recognition as sole bargaining agents for members of university staffs on academic and academic-related salary scales, many universities had conceded to those branches a consultative status that seriously limited the freedom of their senates and councils to make free decisions; the growing strength, in numbers and in arrogance, of the association has increased the measure of power devolved from the employee-corporator to the employee-unionist.

The final substantial derogation from the powers of the universities has been wrought by the assault of industrial and social legislation, and even governmental fiat, upon the rights of all corporations, which have been required in particular ways to order their relations with those that they have engaged to work for them. The powers given to councils and courts to settle forms of appointment, to appoint, to promote or reward the worthy, to dismiss the unwanted, have been circumscribed or diminished. Not unnaturally the ability of universities to give the best possible and the most appropriate forms of teaching has been impeded by a general prescription to employ non-British, non-Christian female Marxists and to ensure that they remain in service until the day of statutory dotage and that while they so remain no one else (should he be by some perverse breach of the natural law more effective or more devoted to his duty) receives any advantage over them.

There would seem to be little that the universities can do to maintain a semblance of order or a vestige of their academic independence, and there seems to be little to prevent the administrator (even though the encroachment of the state aggrandises this mediator between the external master and the internal and nominal maker of decisions) from suffering particularly when his relation to the external master causes his academic colleagues to resent his activities and when during a period of economic insufficiency a human sacrifice is needed to propitiate the god-public and to satisfy the superstitions about their own unchallengeable right to survival that university teachers incessantly and ubiquitously cultivate. Perhaps, we should consider a small number of problems and examine whether some effective remedy or alleviation is in reality not available. It may well be that a similar scrutiny of possible escape devices and a similar exploitation of adverse forces may be used in respect of other difficulties.

The most general of the serious academic problems that is being created is that that will follow the likely reduction in the control that universities are able to exercise over admissions. The substitution of school-leaving examinations for examinations that are intended primarily to ascertain academic attainment and a scholarly potential (which is the only possible interpretation of the intention of the Schools' Council that does not question its members' sanity) will substitute indiscriminatory certification for an instrument that has hitherto helped the universities to exercise particularity and finesse in their choice of undergraduates. The successor of the external or co-operative examination of candidates for matriculation will then do no more than provide a species of booster to a child's birth certificate, will assure whosoever reads its diplomatic records that N or M has been nurtured by its parents for some 18 years, has been obliged by law to attend school for 16 of those years and has voluntarily endured two further years of desultory and pointless instruction. If the universities are then to maintain those standards of admission which alone will allow them to maintain their standards of teaching, they will once more have to set their own matriculation examinations; in one aspect of their work they will again be obliged to act autonomously and independently. They will no doubt then wish also to restore to the process of admission the interview which in many subjects in many universities has been abandoned. That the universities should in this matter rely not only on their own machinery but also fully on their own judgements can be no bad thing.

Let us turn now to a problem of a different kind, one concerning those administrators who are concerned with the machinery of university government. A consequence of the dependence of the university on the state is the high

degree to which the administrator finds himself the conveyor of outside news, outside instructions, outside policies, outside finance into the university and into its system of committees. Of no administrator is this more true than it is of the vice-chancellor. The vice-chancellor is, however, also the senior academic officer of the university, the person chiefly responsible for academic appointments, academic developments. Part of the weakness of university government now stems from the inability of vice-chancellors to discharge adequately both the role of chief consumer and the role of representative of the chief providers. Where there should be parley and debate, where criticism of academic proposals should be fearlessly and scrupulously conducted by those bearing a conscious responsibility towards the public and its substantial grants, in senates and councils academic and layman defer to the vice-chancellors most of whom remain at heart academics imbued with the academic's desire to extend learning and the singular academic belief that this is most surely done by extending expenditures on learning (particularly, of course, in one's own discipline). Where the vice-chancellor is, however, more conscious of his public responsibilities, he is again dutifully followed and supported by senate and council, and the university's autonomy, especially its academic autonomy, is further diminished. Neither situation makes for good government; both suggest that the single supreme officer, chief academic and chief administrator, should be replaced by two virtually equal mandarins and that fruitful controversies, which are a condition of economically sound and academically justifiable decisions, should take place in a single chamber. It is not the governing body that should be divided but the office of governor.

The industrial legislation that seeps so pervasively into the nervous systems of the universities, paralysing muscle, numbing decisiveness, is likely to have a noteworthy effect on the status of administrators. Hitherto the academic has claimed tenure and a clerical immunity from the consequence of his indiscretions even when they amount to demonstrable lunacy. The immunity and tenure have been justified by an appeal to the need to maintain academic freedom: unless a teacher is protected he will not be free to proclaim the truth, which may be (perhaps always is) generally unpopular. Now the position is changing. It is becoming virtually impossible for an employer to dismiss an employee unless he is physically or mentally incapable of doing his work, or he is guilty of a serious industrial misdemeanour, or he is redundant. As the provisions of charters and statutes protect the university teacher against unfair dismissal on grounds of incapacity and as the Association of University Teachers will protect him against dismissal on grounds of redundancy, in general he could only be dismissed for a serious industrial misdemeanour. This is more or less true of the administrator. Consider, however, whether it is easier to discover and present evidence that a teacher is guilty of a serious industrial misdemeanour or to discover and present evidence that incriminates an administrator and exposes his faults and follies. There can be little justification now for claiming that a university teacher should have a guaranteed tenure of his post until the age of retirement; but there is a strong case for holding that an administrator should have. His failures are easily revealed, he is unpopular because he enforces unpopular as well as popular decisions, he is regarded as outside the fold because he often brings to discussion the outside critical view and, increasingly, the information or the demand that comes from elsewhere. Therefore, whilst universities are tempted to solve some of their financial problems by reducing staff and are ready to prepare the way for reductions by proposing that administrators be given contracts for a short term, for a fixed term or for an indefinite period, administrators must for their part

be ready to argue that it is they and not their academic colleagues who need the protection of assured employment. The final problem that I shall treat is the most crucial one. It is whether the universities can convert their loss of independence into a measure of strength and so regain some of the freedom to make decisions that is the mark of autonomy. In brief the choice lies between subservience to the community and subservience to the state, of which subordination to the U.G.C. is the most obvious and the most dangerous feature. Nothing I have learned since I first wrote publicly on relations between the universities and the U.G.C. persuades me that I have exaggerated the enervating, the strangulating effects that the U.G.C. has had upon the universities. Of this the universities seem less aware than does the state. For example, in a statement issued in November 1975 on proposals by the Council of Local Education Authorities for new regional advisory machinery for further and higher education, the Committee of Vice-Chancellors talks of individual institutions which "retain academic and administrative freedom while receiving guidance (my italics) and most of their income from the University Grants Committee". In the same month appeared the white paper on devolution to Scotland and Wales, in which the government says that it believes that universities of Scotland "should continue to be run as part of a wider United Kingdom system and under the supervision (my italics) of a single University Grants Committee". The government, I have no doubt, knows what it expects from its agents.

Subservience to the community has two obvious advantages: it is voluntary and it is that form of ministry which is rewarded by deference, as the ministry of the universities to the community always has been. The opportunity for it, moreover, has been offered. In his address to the annual general council of the Association of University Teachers in May 1975, Lord Crowther-Hunt, minister of state in the department of education and science, commended to the universities and the polytechnics collaboration between neighbouring institutions and invited the universities to take the initiative in developing co-operative machinery. Whilst the polytechnics trample on the toes of the universities, whilst colleges of education press for validation for the new range of degrees that will bedizen our future colleges of the liberal arts, there is every reason to seek within regions not advisory councils but effective instruments of co-operation that will enable rivals to settle their claims voluntarily among themselves and to draw from their collaboration the strength of common policy and common programmes. The justification then for the state to interfere to regulate competition and to avoid duplication and waste will disappear. The U.G.C. may in consequence be obliged to revert to performing an office of guidance, and something of the autonomy of the universities may be salvaged, even if that autonomy does not shew itself in an unreasonable and unrestrained exercise of the right to do what one will, though it be at the expense of one's neighbours. If the right institutional machinery can be devised and collaboration is successful, there is every chance that the current antipathy towards the distant, central power and the desire for a local and a more sensitive control of common affairs that has shewn itself in the claim for devolved powers of government in Scotland and Wales may lead even the state to see virtue in unburdening itself of the unrewarding task of financing the universities through a central agency. In a real sense then Lord Crowther-Hunt looks forward and the white paper on devolution hedges in section 127 (as it does consistently- and inconsistently - throughout its length) and shies from the heraldic shadows of the inevitable. In going forward now and seeking to establish strong regional bodies in which the universities, polytechnics and other institutions of higher and further education join together to order their affairs to their mutual advantage, the universities have I think their last opportunity to regain a significant part of their autonomy.

Topic: Staff/Student Ratios and Their Use (Part of Theme B)

Contributed by: F J Orton (Sheffield)

The resource allocation process should have two main aims :

- (a) maximum satisfaction (or perhaps minimum dissatisfaction) for those concerned;
- (b) the optimal use of the available resources.

The first is a study in organisational behaviour, the second in economics. The numerical approach, which is with us to stay, should be based on sound economic theory but will flounder if it ignores attitudes in the institution for which the system is designed.

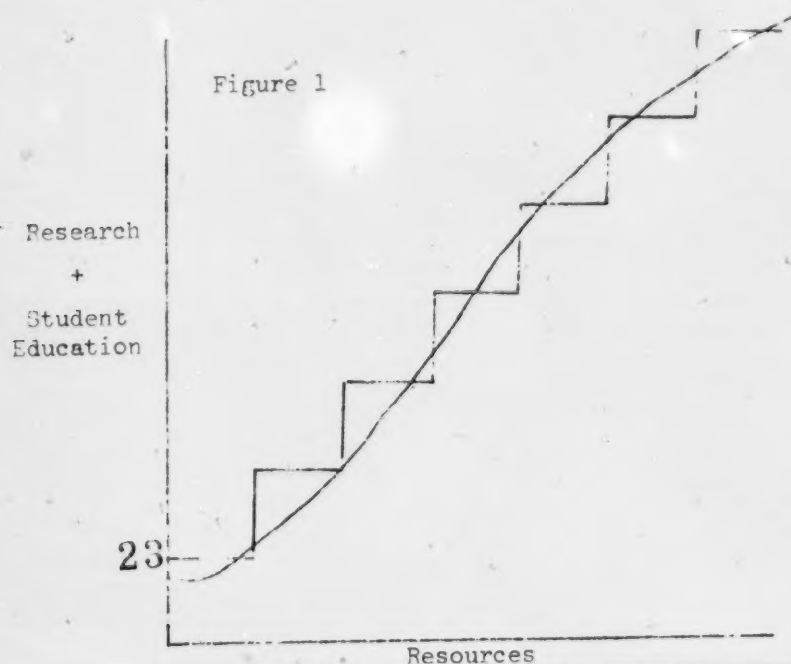
This paper, entitled staff/student ratios and their use, ranges over a number of topics concerned with the allocation of resources and illustrates certain techniques linking loads and resources besides students and staff. The broad principles are the same whatever the input and output.

(a) Theory

'The allocation of scarce resources among competing ends' is an old-fashioned definition of economics.

The economic theory can be expressed in general form in Figure 1 when the general function can be expressed as :

$$[\text{Research} + \text{Student Education}] = f(\text{Resources})$$



The continuous line oversimplifies the position as most resources are supplied in steps: new buildings, new staff, new equipment; departmental grant can usually be regarded as a continuous function. The graph shows in the lower section increasing returns to scale, in the middle section constant returns and in the top section decreasing returns. Even these lines are simplistic models.

By plotting resources by students and drawing a regression line of best fit through the data (Figure 2) it is possible to find out which departments are well provided and which are badly provided.

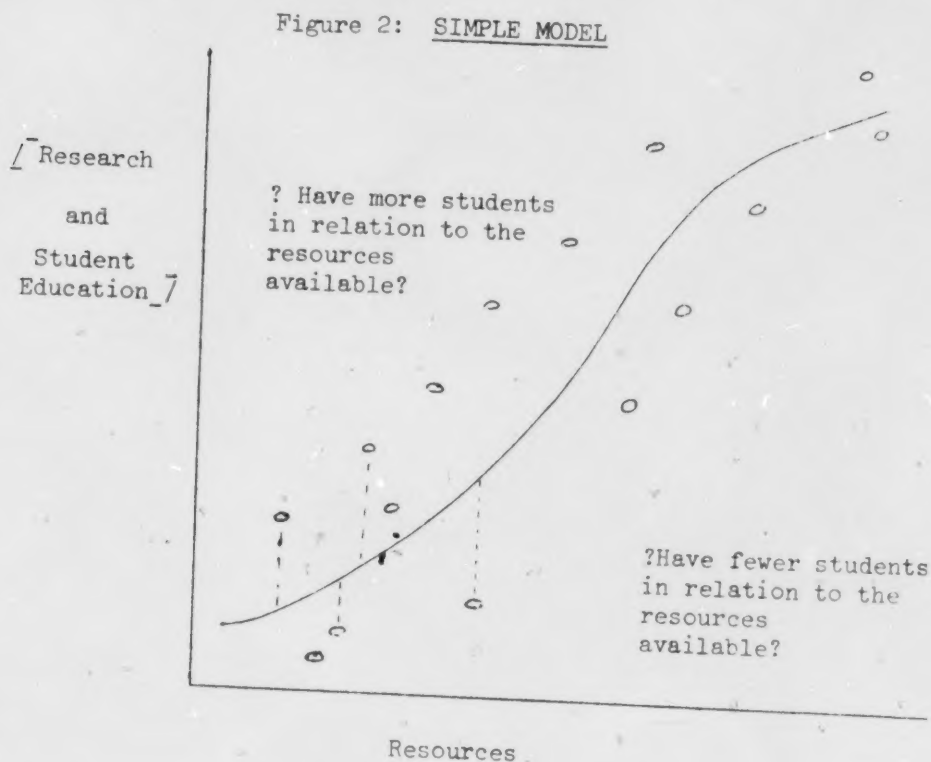


Figure 2 shows a relatively simple relationship - more complex models can be constructed by increasing the number of variables and using the computer by very standard programmes to perform the necessary calculations. The same basic principles apply irrespective of the number of variables. A predicted value for the independent variable can be compared with the actual of each department in the University.

This regression model approach can be used to examine a number of resource allocation processes both within and between universities, but each method relies on a statistical approach. It is a fallacy to imagine that numbers can cover everything so there should always be room for consideration of individual cases by an "intuitive" method after the calculations have been made. Within limits the scarcer the resources available the more numerical methods are relied on.

(b) Example 1: Libraries

It is logical to suppose that a university's expenditure on its library should be related to its student load, and hence to its numbers of academic and research staff. A connection may also be expected between the level of expenditure on the library and the proportion of science-based students in the University: in arts-based subjects the library almost corresponds to the laboratory of a scientific discipline.

For English universities there are highly significant correlations between total expenditure on the library and

- (a) total expenditure on teaching and research staff salaries
- (b) the percentage of science-based students.

Actual numbers of teaching and research staff gave somewhat less close correlations. There are two special factors in the use of this approach. The value of the indices of significance of the equations is considerably increased if institutions which have students in only one of the two categories (science, arts-based) are omitted. The Universities of Oxford, Cambridge and London have a somewhat different pattern of library provision from the majority of institutions and are different in a large number of other ways. One always has to consider whether they should be omitted from the calculation. Their omission leads to appreciably different results and conclusions.

The equation used is of the form

Total Library Expenditure =

a.(total teaching/research salaries) + b. (% science-based students) + c.

Details are given in Appendix I.

Comparison of University A's actual expenditure with that predicted on the basis of equations (i) and (ii) in Appendix I gives the following results:

- (i) when University A is compared with all other English Universities (except specialist business schools), it can be deduced that this University spends about 8% (£34,000) less than would be expected if it conformed to the norm as shown by the formula (i) in Appendix I.
- (ii) when Oxford, Cambridge and London are also excluded from the calculation it can be surmised that University A spends about 12% more than would be expected from the norm as shown by the formula (ii) in Appendix I.

This leads one to speculate that, if it is accepted that Oxford, Cambridge and London should be omitted from comparisons, University A's library has probably done relatively well. From experience of fitting such equations, the use of more complicated formulae e.g. a curve rather than a straight line, is not likely to lead to vastly different conclusions.

(c) Example 2: External Examiners' Fees

The sum a department should be allowed to spend on external examiners' fees can be derived by the same statistical approach. A formula can be calculated linking the number of student equivalents in a department to the money available to it for external examiners' fees. The number of student equivalents reflects the total work of the department and would therefore ensure relative equality between departments of the same size. In most departments, external examiners do not play a large part in the examining of first year students and the calculation could be based on the number of undergraduate student equivalents in the second and subsequent years of a course (first M.B. counting as the first year of the medical course). The external examiner also in most departments does not play a large part in the examining of the service teaching given by departments and it could be argued that the independent variable used as the basis of the calculation of external examiners' fees should be the number of student equivalents of second and subsequent years less the element attributable to service teaching.

In the University of Sheffield the external examiner's fee for each subject was correlated with

- (i) the total number of undergraduate student equivalents
- (ii) the total number of undergraduate student equivalents - second and subsequent years only. (This gives greater correlation.)

(d) Application

The most interesting figure is usually not so much the formula itself but the individual deviations of the actual from the predicted department by department. Can these deviations be accounted for? Should the formula be changed on the basis of this information? Had the departments who seemed to spend a lot less than the predicted amount anything in common? In this case they had all (except one) expanded rapidly in the last few years. Had the departments who spend a lot more anything in common? They had all had difficulty in recruiting students.

It is almost always found that Clinical Medicine and often Clinical Dentistry do not fit with the rest of the University but it is helpful to point out by how much they differ and to ask the question: 'why?' There are usually some good reasons which can be understood by non-clinical colleagues.

B. STAFFING NEEDS

The earlier sections of this paper have shown how statistical methods can be used to judge how much is needed overall (the library example) and how a given sum should be distributed between departments (external examiners' fees, for example).

The more obvious examples of calculations for resource allocation processes relate to staff. The methods of measuring staff need can be divided broadly into five types :

- (a) Contact hours/Job analysis
- (b) Student load
- (c) Comprehensive formula
- (d) Student load by size of department
- (e) Inter-University comparisons

each of which has strong advantages and weaknesses.

(a) Contact hours/Job analysis

This method measures the tasks which staff actually do. In its simplest form the number of hours that academic staff spend directly facing students in a teaching situation is used; in more sophisticated models the hours spent on preparation, marking, examining, setting papers and so on are also included in the calculation.

For technical and clerical staff complicated systems can be developed which measure the work load of staff, e.g. for clerical staff, measures can be made of the number of pages typed, the number of documents received, the number of documents filed.

Advantages

The measure represents the work staff actually do. The contact hours measure can take account of different methods of teaching, is used in some other sectors of higher and further education besides the universities and has an obvious appeal to staff who are keen to teach; it emphasises teaching at the expense of research.

The system can be adapted to take account of a wide variety of other factors besides lecturing hours, e.g. tutorial time, time spent in marking essays, time on administration and so on.

For a department the method reflects how tasks are allocated within the department. Most heads of department will try to ensure that the number of contact hours of their academic staff is approximately the same and it is difficult to argue that this should not be so across the University.

Disadvantages

Although the contact hours method measures the amount of work done, it does not measure how necessary that work is. Has the work expanded to fill the time available?

The method encourages small classes and the proliferation of options. Student contact hours measures require uncheckable information from departments and the method places an extra administrative load on a department asked to provide reliable information. Staff contact hours are difficult to measure. For example, time for preparation varies widely and hours of staff supervision of laboratory/studio work actually in progress can also vary. A member of staff, for instance, may be sitting in his room working on some other matter on call to students rather than actually working with them in the laboratory.

The system encourages over-teaching and research is discouraged. The UGC pays universities broadly on the basis of numbers of students and there seems some logic in having the allocation process within the university reflecting the method by which the institution itself obtains the money. The contact hours method can also lead to central interference in the way departments teach.

(b) Student load

Measurements of student load usually rely on the concept of full-time student equivalents which take account of service teaching by one department for another. The whole concept of 'full-time student equivalents' is a topic on its own but broadly, there are two ways of calculating this as a measure of student load.

(i) The calculation of unweighted student equivalents assumes that no student can amount to more than one full-time unweighted student equivalent. The division between departments is made as far as possible on academic criteria, e.g. for a first-year student in Arts who takes three equal subjects, each of the three departments responsible for the teaching of these subjects is credited with 1/3rd of a student equivalent for each first-year student taught in that Faculty.

(ii) In some other Faculties, e.g. some applied sciences the division into student equivalents is based on the amount of time the student spends under tuition in the departments concerned.

The concept of a student equivalent fails to take account of the 'fixed' element in providing tuition of students. A department that has to provide a large number of courses for a number of students from other departments has far more work than a department that provides only a specialised honours degree for the same number of student equivalents. The department providing only a one-subject honours degree course does not need to undertake liaison with other departments nor to advise a variety of groups of students. There is a strong case for including within the range of independent variables the number of actual students that the department has to teach. This refinement, however, needs fine tuning because the giving of the occasional lecture by Department A for Department B does not involve Department A in any pastoral work and only minimum inter-departmental liaison. A criterion of a minimum of a weekly lecture for a term is a reasonable measure to judge whether a group of students should be included.

Where the contact hours system is weak, the student load calculation is strong but would be considerably strengthened if the need for clear differences of student/staff ratio could be established between subject groups. There are various figures available but the extent to which these are a reflection of current practice rather than real need is doubtful.

(c) Comprehensive formula

It is helpful to analyse the components in the term staff/student ratio. It can be shown to be more than just number of staff divided by number of students. The components of the staff/student ratio are shown in Figure 3.

Figure 3

Average Student Contact Hours

Average Class Size x Average Staff Contact Hours

An example is needed to prove this formula.

We can examine the example of a department with

99 students,	}	Ratio $\frac{9}{99} = \frac{1}{11}$
9 members of staff,		
5 groups of students and		
10 average student contact hours per week		

The Staff/Student ratio is $9 \div 99$ or 1 to 11.

$$\frac{1}{11} = \frac{9}{99} = \frac{10 \text{ (Av. Student Contact hrs. per week)}}{\frac{99}{5} \times \frac{5 \times 10}{9}}$$

$$\text{Av. Class Size} = \frac{\text{No. of students}}{\text{No. of classes}}$$

$$\text{Av. Staff Contact hours} = \frac{\text{Total no. of classes}}{\text{Total no. of staff}} = \frac{5 \times 10}{9}$$

Figure 3 shows what is perhaps the ideal management data required to give the position about the need for academic staff in a department.

Each of these three variables is perhaps easy to measure in a school situation but is much harder to define in a university situation. What is the average class size for a laboratory class in which the students are expected to spend all their time with no formal classes? When a member of staff is available for consultation while the students work in the laboratory, how many staff contact hours does this represent? How can this formula be used for the postgraduate situation? In spite of all these difficulties the formula does provide an interesting insight into the whole resource allocation process.

The real criticism, however, of such a collection of statistics is two-fold: firstly, the cost of producing this wealth of information may be greater than the benefits gained. The collection of statistics consumes resources that might be better spent on teaching and research. Second, the freedom the UGC gives universities to deal with their resources in the way they think best is a welcome departure from over-central control. The same principle should as far as possible apply when central university committees deal with departments. Once a department has been given its resources, or a staff/student ratio, decisions about how to teach, what size of groups to teach in, how many contact hours staff and students should have, should be decisions for the individual department. Can administrators, or even a head of another academic department decide how to teach a particular specialism? If the Professor of, say, Mongolian Literature states that it should best be taught in tutorials of two students to one member of staff with no lectures, then on what basis can an administrator or a Professor in another department argue? If, however, the Professor of Mongolian Literature is given a student/staff ratio within which to operate he can still have his small classes but either staff must teach more hours or the number of student contact hours must be reduced. The department can take the decision.

(d) Student load by size of department

Having discarded this comprehensive formula on the basis of cost and possible inapplicability in the university situation, other approaches have to be found. The contact hours technique is mainly favoured by small departments who find they have to work very hard when the staff/student ratio is standardised throughout the university. Small departments usually have small classes through no fault of their own and it takes as long to lecture to a small class as to a large one. There are after all some economies of scale in higher education. I would therefore like to commend use of a regression line which can be used to take such factors as size of department into account.

The example given below is from an imaginary university which cannot be accused of bearing any relationship to any real university in the eastern or western world.

University of Q

The following table (Figure 4) shows the number of students (weighted) and the number of academic staff which was calculated by making allowances for part-time staff, including part-time demonstrators and tutors.

Figure 4

<u>Department</u>	<u>Student/Staff Ratio</u>	<u>Student Equivalents</u>
Science A	4.9	163.68
Science B	7.3	291.28
Science C	11.0	204.45
Science D	5.9	105.66
Science E	7.3	84.38
Science F	5.4	28.87
Science G	5.6	30.27
Science H	10.1	238.56
Science I	11.1	388.44
Science J	10.1	176.34
Preclinical A	8.5	144.95
Preclinical B	8.0	151.92
Preclinical C	7.3	126.24
Medicine A	7.9	55.47
Medicine B	8.7	213.41
Technology A	8.1	125.72
Technology B	10.6	219.83
Technology C	7.3	68.85
Technology D	10.0	199.93
Technology E	7.9	196.77
Technology F	9.4	72.54
Technology G	7.6	87.05
Technology H	7.7	23.40
Technology I	8.2	209.19
Technology J	10.6	184.99
Technology K	8.3	52.41
Technology L	9.7	39.79
Technology M	11.2	113.73

Figure 4 (cont.)

<u>Department</u>	<u>Student/Staff Ratio</u>	<u>Student Equivalents</u>
Arts A	11.8	110.23
Arts B	2.1	3.55
Arts C	5.9	22.67
Arts D	9.6	48.31
Arts E	12.7	75.96
Arts F	14.1	157.45
Arts G	7.7	110.28
Arts H	8.2	64.20
Arts I	4.5	45.86
Arts J	5.2	28.05
Arts K	9.9	139.73
Arts L	11.0	46.80
Arts M	7.4	51.63
Arts N	6.2	18.67
Social Science A	12.0	141.93
Social Science B	9.3	86.22
Social Science C	11.3	351.62
Social Science D	10.7	236.74
Social Science E	2.9	25.22
Social Science F	8.7	117.91
Social Science G	10.7	172.95
Social Science H	13.5	317.70
Education A	12.8	322.73
Education B	9.3	79.31

It can be seen by inspection that with some exceptions the larger the department in terms of academic staff the less favourable is the staff/student ratio. This relationship was significant at the 5% level and was used to calculate a table of comparative staffing (Figure 5). This table has been drawn on the assumption that the first equation is only relevant for departments with from 1 to 30 members of staff. Another equation, which assumes that there are no more economies of scale, and that all additional students above about 300 student equivalents are taught at a student/staff ratio of 1/12, was used to determine the place of large departments on the table.

The figures were provided as an aid to, not as a substitute for, reasoning. They must be used with a healthy scepticism.

The effect of amalgamation of departments into schools or larger departments or of separation into smaller units does have an effect on the place in the table. If the units are already fairly large the result of amalgamation is not striking but when very small units amalgamate the change in position can be pronounced and may possibly over-state the real favourability of the department concerned.

It is important to realise that although all departments are placed in an order there is a wide area of uncertainty. For instance, while it is possible to suggest that there is a significant difference between departments in the centre of the table and those at the extremes, the analysis does not in any way prove that there are real differences between different departments close to each other in the table.

The table of comparative staffing gives the proportional difference in numbers of staff between departments. The information in the table also gives the actual numbers of academic staff which a department has over and above or less than the mean figure for a department of that student load.

For instance Department of Social Sciences D had 237 weighted student-equivalents and $22\frac{1}{4}$ academic staff-equivalents. From the equation given on the page after the table of comparative staffing the predicted number of staff for a department with this number of students was $24\frac{3}{4}$ academic staff-equivalents and hence Social Sciences D was shown as $2\frac{1}{2}$ members of staff short (this figure is entered as $-2\frac{1}{2}$ in brackets on the table of comparative staffing).

The table itself shows the proportional difference between departments, e.g. Arts D was 1 post short in a total of 5 staff, i.e. 20% short; Social Sciences D was $2\frac{1}{2}$ posts short in a total of $22\frac{1}{4}$ posts, i.e. 10% short. It is for a Committee to decide, if need be, whether one Department which is 20% short on 5 staff is in more need of staff than another Department which is $2\frac{1}{2}$ short on a total of $22\frac{1}{4}$ posts.

The vertical axis measures the difference between the actual student-staff ratio and the ratio predicted on the basis of the number of staff in a particular department.

For $t = 1$ to 30

$$\frac{s}{t} = 0.64 \sqrt{t} + 6.41 \text{ Equation 1}$$

For departments with more than 30 staff the equation above applies until $6 = 30$ when the following equation is used to consider the position above 30 members of staff :-

$$s = 12 (t - 30) + 298 \text{ Equation 2}$$

(t = number of academic staff equivalents
 s = number of student equivalents)

The formula suggests that as a department gets larger the student/staff ratio should also get larger. The larger departments can cope with more students per members of staff than can the small ones. It was found that the student/staff ratio was a function of the number of staff in the department. This measurement was made at the time when the decisions about the allocation of resources were taken on intuition, so originally it was not a self-fulfilling prophecy. The particular equation with a square root term helps measure the concept that most of the economies of scale are achieved by expanding the smaller departments. This reflects the UGC view about viable sizes of departments - by viable is meant that there is little economy of scale left.

This formula has used the economic theory discussed at the beginning of this paper. The Orton formula uses the concept of increasing returns for small departments and constant returns for the medium-sized. The University of Q has no very large departments of, say, 60 members of staff, so does not need at present to devise a formula to reflect diminishing returns.

Figure 5

Table of Comparative Academic Staffing

More students to staff than average

	Arts F (-6)
-5	
	Arts E (-3)
-4	Social Science H (-8)
	Arts A (-3½), Social Science A (-4)
-3	Arts L (-1½), Education A (-7)
	Technology M (-3)
-2	Technology L (-1)
	Arts D (-1), Science C (-3)
	Social Science G (-2½)
	Technology J (-2½), Social Science C (-3½)
	Social Science D (-2½), Technology B (-2½), Technology F (-1)
-1	Arts K (-1½), Education B (-1), Science J (-1½)
	Social Science B (-1), Science I (-2½)
	Technology D (-1½), Science H (-1)
	Technology K (-½)
	Technology H (-)
	Arts H (-)
	Social Science F (-)
	Medicine A (-)
	Preclinical A (+1), Arts M (+½)
+1	Technology A (+1½), Medicine B (+2)
	Technology G (+1), Arts G (+1½), Technology C (+1)
	Preclinical B (+2), Arts N (+½), Science E (+1½)
	Technology I (+3½)
	Technology E (+4)
+2	Arts C (+1), Preclinical C (+3)
	Science G (+1½)
	Science F (+1½)
	Arts J (+1½)
+3	
	Science B (+10½), Science D (+6)
+4	
	Arts I (+4½)
+5	
	Science A (+15½)
	Arts B (+2), Social Science E (+5)
	<u>Less students to staff than average</u>

The formula is, perhaps, relatively complex, so the following table gives a simplification :

Figure 6
UNIVERSITY OF Q.

Normal Staff/Student ratios for various sizes of department
measured by number of staff

<u>Number of staff</u>	<u>Departmental overall Student/staff ratio</u>	<u>Weighted Student Equivalents</u>
1	7.1	7
6	8.0	48
11	8.5	94
16	9.0	144
21	9.4	196
26	9.7	252
31	10.0	310

The staff numbers include an allowance for part-time demonstrators and the student numbers include a weighting for postgraduates (first year postgraduates in Science 2, first year postgraduates in Arts 1.5 and for all clinical students 1.6). Academic posts e.g. lecturer, experimental officer, below the level of Lecturer are counted as one half.

This shows that a small department has to have approximately eight extra students to justify one extra member of staff. The larger departments have to have eleven or twelve extra students to justify one new member of staff.

The question has been asked whether this formula given above favours the small departments too much. Used on its own, it probably does not, but used in conjunction with 'intuition' or persuasive argument, it probably does. The formula tries to take account of small departments' special cases. A large department with 30 or more staff would find great difficulty in arguing that it has no one to teach a particular specialisation in a subject. The small department argues that the department wants to develop some particular option and needs extra staff to do it and the resource allocating committee is prepared to listen. Small departments' arguments plus the advantage given by this formula can lead to an excess of posts being given to small departments.

The technique assumes almost all departments of the same size should run on the same student/staff ratio. It is interesting to note that most of the departments needing more staff by the formula are arts based. It is not until one gets to the department Science C that one finds a department that is science-based in Figure 5.

The regression line is drawn between different departments of different type. This can be a serious criticism, but could be overcome by introducing an additional variable 'science based' or 'arts based'. Perhaps however the science based departments are generally short of students and it is for that reason alone that they tend to lie in the 'favourable' part of the table.

(e) Inter-University comparisons

One way to overcome the above criticism is to make comparisons between universities, taking not necessarily universities of the same type but subject groups of the same size. Comparisons between universities are fraught with difficulties. The statistics are not necessarily collected on the same basis by different universities. By making a comparison based on arithmetic means of different universities, is there then a strong pressure to come to those means? Student/staff ratios are very favourable in some subject areas not because this is the right ratio but because there is a dearth of students after a period of plenty for which the department is staffed. Volume 6 of the D.E.S. Statistics of Education gives details of load and expenditure by subject group only. This is of limited value in a university divided on a departmental basis or divided into schools not broadly the same as the UGC classifications.

C. TECHNICAL STAFF

In respect of technical staff three different methods can be commended :

(a) a formula based on the assumption that the need for technical staff (measured by the sum of money spent on technical staff by a department) is a function of

- (i) Numbers of weighted student-equivalents
- (ii) Numbers of academic staff-equivalents
- (iii) Size of departmental annual recurrent grant
- (iv) Amount of equipment in the department

It is not easy to make an estimate of the value of equipment in a department but since this will be very highly correlated with the size of the departmental recurrent grant the inclusion of equipment cost would add little and can be ignored.

When the calculations were made in the University of Q the multiple regression analysis showed that the expenditure on technical staff was inversely related to the number of weighted student-equivalents. This is an obvious nonsense so for the calculation of an equation (i) and (iii) only were used as independent variables. The size of departmental grant was highly correlated with expenditure on technicians ($r = .0487$). The more sophisticated form of the relationship was, however, calculated, including staff numbers and departmental grant as the independent variables, and the equation derived was

$$T = 6.0371F + 6.8425 \sqrt{G} - 454.5821$$

when $T = £ \times 100$ spent on technical staff, F the number of academic staff-equivalents and G the size of departmental grant. The major criticism of this equation is that there are a number of departments which, at the present time, appear to have a relative abundance of academic staff in relation to the the number of students in the department. The criticism can be overcome by taking for each department the predicted number of academic staff that a department should have which can be derived from Figure 5 above. The net result of these manipulations is shown in Figure 7. There are important differences between this Table of comparative technical staffing and the Table of comparative academic staffing.

- (i) the former defines the absolute need for technical staff while the latter gives an indication of the proportionate discrepancy in academic staff.
- (ii) The former measures expenditure on technical staff while the latter measures largely numbers of academic staff.

(b) One alternative to the method above is to incorporate instead of departmental grant the number of laboratory classes that a department organises and the number of student hours in attendance on the basis of an equation

$$T = A + \sqrt{\frac{F + G}{100,000}}$$

when T = number of technical staff

A = number of academic staff

F = number of classes

G = student hours

Figure 7

Adjusted Table of Comparative Technical Staffing

This table takes account of departmental grant and number of academic staff equivalents adjusted by the amount of over and under staffing indicated in the Table of Comparative Academic Staffing

Unfavourably staffed

fs x 100

-320 Tech. D.

-280

-240

-200

-160

-120 Tech. C.

-80 Social Sc. A., Tech. B., Pre-Clin. B., Tech. J., Social Sc. D., Tech. K.

-40 Science F., Pre-Clin. C., Science E., Pre-Clin. A.

0

+40 Science D

+80 Tech. I

+120 Tech. F. and G., Science E., Science G.

+160 Tech. A., Tech. E., Science B., Science A.

+200

fs x 100

Favourably staffed

This "by inspection" approach to the problem illustrates a less statistical and possibly easier way of deriving functions. It gives workable approximations without the need to undertake a statistical analysis. On the other hand the sophistication of modern calculating machinery eliminates the need either to perform laborious time-consuming operations or to turn to the main University computer.

The main disadvantages of the method are :

- (i) the department with an excess of academic staff will be shown to need a relatively large number of technicians. This can easily be overcome by using the predicted number of staff as in (a) above.
- (ii) The department that in the past received ample resources and multiplied the number of classes and attendances at classes can continue to do so. The department that wishes to change its teaching pattern and increase its laboratory load for students will find it hard to do so.
- (c) A number of functions incorporate the number of student equivalents as the main measure of need for technicians, e.g. in the University of Q

$$T = 0.13 Se + 5.2$$

when T = number of technicians

Se = number of student equivalents

This approach suffers from the major disadvantage that it can be only used to compare departments with the same teaching style. It would for instance be quite inappropriate to use it to measure the relative needs of geography as against chemistry.

D. CLERICAL STAFF

In this instance a simple staff/student ratio of clerical staff (including part-time) to student equivalents is reasonable, but this simple statistic can be developed in a number of ways. It could be argued that the number of pages of publications of the department concerned should be included, though some might doubt whether the University should be paying for the typing of publications which are being written on contract. The size of the departmental grant/outside grants are other indicators since clerical needs are greater in respect of the administration of such grants.

E. COMPARISONS OVER TIME

Any of the above methods can be supplemented by comparisons of a department's statistics over time. There must be examples in many universities where the student/staff ratio has changed from, say, 1:9 to 1:6, an unfavourable figure to a favourable one over a period of about seven years. This of itself is no proof that the department is now overstaffed but when questions of review arise the department might need to justify the very favourable ratio of the present compared with its less favourable ratio in the past.

F. REALLOCATION

At the present time most universities are reallocating their **limited** resources rather than allocating new. The same figures are useful whether for the allocation of something extra or the harder process of reallocation. There are, however, two types of reallocation which need discussion.

(a) Readjustment

At the present time the shortage of resources in universities leads to unfavourably staffed departments asking when their difficult position will be resolved. In University Q the obvious ways to resolve the problems of the poorly off are either by the departments at the top of the table taking fewer students and those at the bottom more, or by transfer of vacant posts from one area to another. The usual reason why departments are at the bottom of the table is that they cannot attract enough students because of a national shortage in that subject, so reallocation of intake quotas is particularly ineffective. Therefore the main way to make progress is to review all vacancies in the well-staffed departments.

Besides the above must be considered the move of staff from one area which is well staffed to a poorly staffed area or the provision of service teaching by well staffed departments for students taught by poorly staffed departments. Some would even class redundancy as a possible mode of action - though not many take this view. This paper is not able to cover in detail the various ways of reallocating resources but two main points stand out. The political will to make reallocations is essential. This political will is much stronger in a period of financial stringency than in a period of plenty. The task can be undertaken better by the uninvolved. The Committee concerned should be comprised of members of departments who are averagely to slightly poorly staffed. To construct the Committee of those from well staffed departments will be unlikely to lead to reallocation. To place many of those from badly staffed departments on the reallocating Committee may leave a taste of unfairness when the task is complete.

(b) Major change

For a major reallocation when a department has to be closed, the principle that redundancy should be avoided makes the process particularly difficult. After all knowledge is indivisible and people should be able to teach and research in the nearest department to their own after retraining. Again, the uninvolved should be entrusted with the task of deciding what has to be done. The enquiry Committee should not have on it either any staff of the department under scrutiny or any staff of a department which might benefit directly from the breakup. All these staff can be seen and given a hearing but they should not be involved in the decision. The Committee must be seen to be fair.

G. SUMMARY

This paper has emphasised the importance of using numbers strongly tempered by intuition as the main basis for resource allocation.

A method of work measurement based on the numbers of students to be taught rather than the actual tasks performed is to be preferred.

Reallocation will develop when needed in the light of the financial situation.

FORMULA FOR FORECASTING LIBRARY COSTS

Total Library Expenditure =

a.(total teaching/research salaries) + b.(% science-based students) + c.

- (i) Omitting the London and Manchester Schools of Business Studies (no science-based students):

a = 0.119	standard error = 0.007 t = 17.69 (significant at 1% level)
b = 3870.255	standard error = 1614.339 t = 2.40 (significant at 2% level)
c = 229543.548	standard error = 89218.969

- (ii) As (i) but also omitting Oxford, Cambridge and London:

a = 0.074	standard error = 0.006 t = 12.32 (significant at 1% level)
b = -1929.818	standard error 422.995 t = 4.56 (significant at 1% level)
c = 194377.171	standard error = 25175.273

FORMULA FOR UNDERGRADUATE 'EXTERNAL EXAMINERS' FEES AT 1975/76
PRICES

Formula: $F_d = 1.4943SE_2 + 35.4325$

i.e. £1.50p per student equivalent plus a basic
sum of £35 per department

F_d = the present external examiners' fees for the
department

SE_2 = the undergraduate student equivalents in the
second year and beyond.

Topic: The UGC's Approach to Capacity Planning (Part of Theme B)

Contributed by: E H St G Moss (UGC)

Capacity planning can be defined as the matching of planning numbers to the capacity of accommodation available or to be provided. Essentially it is a matter of ensuring the efficient use of limited resources. Its increasing prominence in the university field in recent years reflects in part a major shift in the orientation of public administration in this country towards the conscious and systematic allocation of resources in relation to defined policy objectives.

In the field of capital provision for universities the change has been from a time in which universities put forward proposals for particular developments, judged essentially on their individual merits, to a time in which the scale of expansion required in the university system as a whole is assessed nationally in terms of student numbers and then translated on the basis of proposals from the universities into appropriate shares for each. The framework for the expansion of the 1960s was provided by the Robbins projections; and the development of the new universities was perhaps the UGC's first major exercise in capacity planning. The rough yardstick used at one time was that expenditure at the rate of £1m a year for 6 years should make it possible to achieve an initial target of 3 000 students. New universities determined their own building priorities within the annual £1m allocation to accord with their own planned academic development, and to achieve a balanced mix of academic, non-academic and residential buildings, with appropriate provision for site development. It is noticeable that the UGC's report on the 1962-1967 quinquennium is full of references to planning targets expressed in student number terms; it includes a discussion of costs per place and refers to work on norms and standards which had already begun in the previous quinquennium. The Committee's approach to development was by this stage clearly conceived in capacity terms.

The shift should not be exaggerated. The UGC had discussed planning numbers for the university system long before Robbins; and they never departed - nor have they now - from the principle that the initiative in proposing new academic developments and capital projects should come from the universities, not from the centre. But the change in emphasis is nevertheless unmistakable, and with it came the need for new methods. The technical difficulties involved in talking and planning with any precision in terms of places and capacity were very considerable, perhaps greater than was initially realized. This is partly because of the different ways in which the word "place" can be used: to provide one full place for one student it is necessary to have a set of matching places in all the different categories of accommodation - academic, communal, residential and so on - which the student will need to use. It is a reflection of the change in approach that had occurred in the sixties that the first survey of the stock of university buildings was undertaken in 1964 followed by the first site survey to establish the details of the land and property held by universities. By the end of the decade however it was becoming clear that there were large discrepancies between the numbers of students universities estimated they could take and such estimates of capacity as were available. In 1969 the first capacity survey in terms of places - academic places only - was undertaken, making use of planning norms which had been developed in connexion with new universities; and this made it clear that the system was heading for a large surplus of science places. Parliament began to take a keen interest in the numbers exercise and the value obtained for money spent. The shift to capacity planning had coincided with major expansion and a great increase in the amount of the taxpayer's money spent on higher education. This in turn led to a requirement for tighter control which was reasonable and inescapable, but posed some awkward problems of administration.

One solution would have been a much higher degree of centralized control such as exists in many other countries. There was indeed a stage when the application of planning norms to new projects was leading to a situation where it seemed that every professor's room in every new academic building in the country was going to be exactly 18.5 square metres in area. But the UGC have always attached great importance to preserving the maximum freedom for universities and to move further towards centralization would have been entirely contrary to the Committee's traditional approach to their task.

Partly through historical accident the British system of support for universities has been based on the block grant. The UGC are strong believers in the efficiency of this system which leaves the practical decisions of detail at each level to those who have to live with them and ensures that the spenders of resources concentrate their efforts on getting the best value for the money they have, rather than on arguing for the maximum they can get on individual projects. It accords well with the modern accent on resource allocation related to specified, but broadly defined objectives. A system was devised for applying this approach to capital development which has three main elements; the Capacity Record, the Outline Growth Plan and a new method of project definition, embodied in the 1974 edition of Notes on Procedure, which is intended broadly to establish the number of places a project is to provide, a minimum usable area and an Expenditure Limit and to give the university freedom to design as they wish within those limits. The whole system is of course designed to fit in with the system of quinquennial planning submissions and allocations on the recurrent side, the two being parts of one edifice. The current disarray of all long term planning for universities inevitably affects the capital side as much as the recurrent, but in such a time it remains as important as ever to keep the instruments of planning in good repair if the damage is to be kept to a minimum. In describing the system therefore I will be describing in the first place the way in which it was intended to work and which still represents the point of departure for whatever improvisations we may have to adopt in times of stress.

The cycle begins with a settlement between the Government and the UGC which lays down the global planning numbers and recurrent grant for a quinquennium, with an indication of the arts:science ratio assumed for the settlement. At the same time the Government indicate a longer term planning figure looking 10 years ahead, which in 1972 was set at 375 000 full time students for the year 1981-82. In relation to the scale of growth which this figure indicates universities are asked by the UGC how they individually see their own future growth in numbers over this period, divided as between arts-based and science-based subjects. The UGC collate the answers, moderate them to add up to the right total figure, and then notify to the universities firm planning figures for the end of the following quinquennium. In doing this the UGC apply judgment and discretion, considering the universities' own proposals in relation to national academic objectives and trends, existing capacity, current growth rates, the capital implications of growth and a broad view of cost. In the process, if the system is working properly, they have available to help them each university's Outline Growth Plan, which is essentially a list of the projects, with their scale and cost, that are needed if specified objectives are to be achieved.

So far we have a dialogue conducted in very broad terms leading to the establishment of longer term planning numbers divided as between arts and science for each university. Numbers of medical students, which are controlled separately in relation to a Government target and ceiling, are also specified. The next stage is for the university to develop their academic plans in more detail looking towards the next quinquennial submission; and correspondingly, in relation to these plans and their existing capacity, to define much more precisely the exact scope and relative priority of the building projects they need to match the academic objectives.

The broad figures estimated for existing capacity on the basis of the Capacity Record have already played a part in determining overall planning numbers. Now the finer detail of the Capacity Record comes into play in helping to determine the scale of new projects - in other words how much extra capacity is needed from the new buildings, and how much further capacity, and of what kinds, will be provided by the process of reshuffling existing space that follows whenever a new building is taken into commission. Here there may have to be a good deal of close consultation between the university and the officers of Capital Division before the project is defined with precision; and we attach great importance to universities not planning their buildings till the process of project definition is complete. This process will include the determination of the number of places to be provided in particular categories on a standard area allowance, plus any special requirements agreed because of the special academic needs of the departments concerned, plus provision for site abnormalities. At the end of it we have an Expenditure Limit, a notional and a minimum area allowance, and an agreed number of places related to the needs of the university and the university system as a whole. The university can then design the building as they themselves wish, provided only they cost plan it from the outset in relation to the Expenditure Limit. If this is done for all projects we end by matching the physical provision of the system to the planned requirement in places - capacity planning is achieved.

As we all know, in practice the numbers forecasts will in the meantime have been adjusted, the students will be applying for the wrong subjects, and the money will have run short; improvisation and making do will be the order of the day. Life is like that. But the improvisation is likely none the less to be more effective than it would otherwise be, and more closely in touch with realities, if it is related to a flexible framework of long term planning established beforehand. Capacity planning as such is not an option to which some alternative is available. It is here to stay whether we like it or not; and the practical task in front of us is essentially to learn to do it well.

Under the system as theoretically planned, our aim is to proceed through continuing dialogue with the universities and the Government to progressive approximations of planning numbers and capacity as the date towards which we are working draws nearer. Each time a quinquennial settlement is made, the broad forecasts of numbers related to outline growth plans are replaced by firm planning figures for five particular years. By then however only one more year of building starts remains that can affect capacity at the end of the quinquennium. This year can be used to make whatever adjustments are possible in order to achieve a close match between planned numbers and capacity at the end of the quinquennium; but capital planning, which looks at least 4 years ahead, has to be based on relatively speculative figures, even when the quinquennial system is working as it should be; and some ragged edges are inevitable. When the planning cycle is interrupted and planning numbers are cancelled or changed at short notice, capacity planning becomes more a matter of immediate expediency. During the last year or two we have had to suspend work on Outline Growth Plans - which look to the more distant future - altogether. But in times of disruption it is still at least as important as before to have a clear idea of what universities can do with their present capital facilities and what change or expansion they can accommodate with relatively small expenditure on adaptations or conversions. This is a key to determining feasible revised planning numbers and getting the best value from very limited capital programmes. And the essential means to it is a comprehensive Capacity Record.

So far as the working of the machinery of planning in relation to individual universities is concerned, there are three points which I think need to be **stressed**. First the system is bound to be a bit arbitrary, since there are no absolute **criteria** by which space requirements can be determined. Secondly we try none the less to operate it as sensibly and flexibly as possible. But, thirdly, it still remains a control and a limitation: that is what it is for.

The UGC's detailed "Planning Norms for University Buildings" underlie the unit area allowances by which basic space requirements for new buildings are assessed and also provide the point of departure for the assessment of existing capacity. No one claims an absolute validity for the norms, but they are based on a lot of experience and the efforts of a series of working parties; and we think that in practice they provide a satisfactory initial yardstick for assessment. In the case of new building their relative arbitrariness is mitigated in two ways. First, once the total area has been built up, brick by brick as it were, in different categories for the different functions the building is designed to perform, we rub out the detailed calculations so that the whole area can be planned not as the norms dictate but as the university think best - provided only the full number of places is made available. You can always expand in some directions so long as you cut back in others. Secondly the UGC are prepared to consider any case that can be made for extra provision either for special research purposes or because of a specially justified teaching pattern. In such cases the officers would normally seek academic advice before reaching a judgment. But as you would expect, the justification in such cases has to be strong. Extra provision is made from very limited building programmes and effectively at the cost of someone else's project. The university that lays great stress on special needs of this kind is saying that it is a particularly expensive university.

In relation to the assessment of existing capacity the officers' aim is to reach agreement with the university on the basis of the university's own assessment of their Capacity Record, making allowance for special teaching patterns or bad fit. Obviously there has to be a good deal of judgment here - on both sides - and in the nature of the case there can be no strict uniformity of treatment. But we have now reached virtual agreement with almost all universities over almost all their space. Even in those areas where there is agreement to disagree, discussion has narrowed down and identified where the actual disagreement lies. It is our hope that universities feel that the results of the Capacity Record exercise are generally fair and generally worth while. We ourselves are conscious that this new style Capacity Record exercise - much more detailed and covering far more categories than the old Capacity Survey - has involved universities in a great deal of work; and adjusting it and keeping it up to date involves continuing work. But the effect is that in the context of numbers planning both for the university system as a whole and for individual universities we now have capacity figures which of course are not precisely right - accuracy is a delusion in this context where use is continually changing - but are also not wildly wrong and good enough for broad numbers planning. We were not in that position before and it is a major gain. Furthermore we are in a position to define the requirements for individual building projects with much greater clarity than before and to establish beforehand what consequential changes there will be and what consequential expenditure elsewhere. These are important contributions to better management by the UGC; and our hope is that the exercise will similarly contribute to better management of their estates by universities themselves. One valuable effect is, I think, that the exercise tends to bring out fairly sharply the relative costs of different teaching patterns. The multiplication of options, for example, however desirable it may be in academic grounds, can become an expensive matter in capital terms unless there is space to spare or great ingenuity can be shown over time-tabling.

There is one feature of the system of capacity planning to which I ought to refer because it can sometimes cause protest. This is the rule that the total number of academic places for which physical provision is provided should not exceed the total number of full time equivalent students for whom the university are planning. We have to recognize that, owing to the varying load of service teaching, it is not sensible to expect a balance of places and numbers always to be maintained within each department. But we do expect a balance to be achieved on a broad basis within the university as a whole. This provides an upper limit and the limit does exercise some constraint on a university to balance the more expensive teaching patterns by the less expensive. Given that there has to be some constraint - and I do not see how a university could expect to be entirely its own judge of the claims it makes on the restricted resources available - this is a way of maintaining the constraint without interfering in the university's own academic decisions. In effect it is an extension of the block grant system and of the system of project definition to which I have just referred. We recognize that in practice certain anomalies can arise, especially where the unit area allowances for the subjects involved in a service teaching arrangement are widely different: if for example your engineers are taught mathematics by the Mathematics Department the space allowance for the same full time equivalent numbers will be significantly less than if they are taught in-house by the Engineering Department. Any extreme cases of this kind, if they arise on a significant scale, we might be prepared to allow for. And we shall be prepared to listen to representations if some major peculiarity exists which cannot be covered by appropriate adjustment of the Capacity Record itself. But we shall always want to stick to the principle of an upper limit.

As this point brings out, our essential task as administrators, both at the centre and in individual universities, is to provide the academics so far as possible with what they need in their own judgment to get on with their job, but at the same time to reconcile what would be ideal with the finance available, and to ensure that limited resources are used to the full to achieve the aims of Government and university policy. This in turn means avoiding waste either through failing to match places and numbers or through unbalanced expenditure on particular functions. In this task capacity planning has an essential part to play.

Topic: The Future of Personnel Management in Universities (Part of Theme C)

Contributed by: Dr R K Shaw (Strathclyde)

PROBLEMS

1. Role of Universities

It is all too easy in the hurly-burly of disputes, tension and recriminations in dealing with Unions to forget the primary role of Universities. As an Academic, therefore, I must emphasise that as I see it we must accept a simple definition of our role as follows:-

"The primary role of the University is education and research, and in these fields it is expected to give the best possible service to the community, commensurate with the total funds allocated to it. Non-teaching employees have a responsibility to provide the maximum level of support to help the University fulfil its obligations. In turn the University, as an Employer, must provide the appropriate working conditions to enable its employees to discharge their responsibilities in the most effective and satisfactory way."

It is for this reason that later in my paper I refer to Academic pursuits as the primary function, Administration as the secondary function and UCNS grades as supporting Staff.

All of us have our performances judged on the basis of objective or subjective standards with the subjective being more common than the objective. It is natural to attempt to satisfy the judgement of our peers on the basis of these standards, and so automatically we tend to reduce our contribution in the totality to that which is immediately obvious in terms of our department or section. We, therefore, tend to get our blinkers on and naturally parochialism tends to take over from objectivity. But, if we are to fulfil our role in the University nothing should blind us to our primary responsibility, which is for the cultivation of our main indigenous resource, namely brain-power, because it is through the cultivation of this asset that economic, and all other successes will be assured.

2. Social Change

Until recently the general standard of living and social conditions in the United Kingdom have shown a steady improvement. Consequently, jobs in what used to be described as 'good', 'safe', 'secure' organisations have become less attractive especially since terms and conditions of employment tend to be more rigid or inflexible. In industry the costs of salary increases and improved conditions can be passed on in what has been, until recently, virtually a seller's market. Effectively the 'security' differentials which operated to the advantage of university, local authority, hospital service staffs have been eroded.

In the 20 years that I have been involved in Universities, the position of the Trade Union movement has changed. With the growing realisation of their power, a new attitude has emerged amongst organised labour. Their growth in strength coincided with an almost unprecedented period of national prosperity. Consequently, when pressure was used to secure improved terms and conditions of employment for their members, in many cases the claims were conceded by employers and passed on to their customers. An important outcome of these affluent times has been a general reduction in work output and demands for levels of wages relative to work output which would not have been tolerated 15-20 years ago. A consequence of the influence of Government, directly and indirectly on national expenditure, has been to encourage the development of more and more bureaucracy in manufacturing industries, commerce and in the service industries, e.g. hospitals, post office, universities etc. This growth in bureaucracy *has coincided with the rapidly increased separation of ownership and management in businesses and coming at a time when selling goods and services was relatively easy; the effects have been:

to reduce the quality of management, because the supply has been inadequate to go round;
Trade union officers and their members have become accustomed to wage claims being more easily conceded now than formerly; and the result has been a tendency to appease the unions, to buy industrial peace and for large numbers of negotiators to be profligates with resources whose allocation did not involve their personal wealth.

In this general atmosphere where the balance of power has shifted markedly in the direction of the trade union movement, it would seem that trade unions in universities have been trying to determine their role, i.e. how they should react, to demonstrate to their members and those whom they wish to recruit, their strength and suitability to represent the needs of the university supporting staffs. It so happens that while the unions in universities have been seeking to establish their individual rights to represent the various groups of workers, these same unions have been involved in the national trade union political arena in a power struggle to determine positions of pre-eminence. Therefore, to a large extent, the current position in universities results from external situations over which they could not exert any real influence.

These factors have meant that universities would have to have come round to considering their industrial relations structure anyway, but events were precipitated by the technician restructuring exercise in 1972 which had a major effect on attitudes between supporting staff and administrators and academics. The effect was to polarise attitudes in the university and to identify the traditional 'two sides', on the one hand, academics and administrators (i.e. the management) and on the other, the trade unions. Experience has shown that the restructuring exercise, while achieving some uniformity in certain technician grades, was made more difficult because of the inadequacy of the document (Blue Book) which was agreed at national level.

*In 1975 there was a drop from 8m to 7.5m employees in productive industries and an increase from 9.5m to 10m in Government, Civil Service and non-productive industries. (Glasgow Herald, March 1976)

At a time when ASTMS were seeking to exert their influence, the restructuring exercise was a glorious opportunity for them to demonstrate their militance in obtaining grades for their members. ASTMS did not miss the opportunity. Who can say what the outcome in July 1975 might have been with Clerical and Secretarial Staffs and the Manual grades, had the £6 wage limit not been introduced.

Summary

The external pressures on universities from changes in the social environment have been such that improvements in our industrial relations and personnel policies and procedures were essential. It follows therefore that universities must develop as quickly as possible personnel departments which can, through their strength, their expertise, their acceptance and their practice, ensure that everyone in universities can proceed in an atmosphere conducive to the primary object of the universities, i.e. education and research, and give the best possible service to the community commensurate with the total funds allocated to it.

3. Traditional Attitudes

.1 Academics

The traditional attitudes of Senior Academics will change slowly. Being the 'supreme' authorities in their specialities and enjoying the status that this accords, they have difficulty in reconciling their status with the need for them to comply with the university 'rules' and procedures of university management, which for instance, mean that academics are not free agents in the employment and deployment of their non-academic staff. There is a distinct feeling that the bureaucracy which has developed in the 'administration' is not only absorbing scarce financial resources but is also frustrating their 'right' of academic freedom. In other words there is a strong tendency to resent the controls which are necessary in a large business such as a university. Having an ear close to the ground it is not difficult to discern that Academics' displeasure with administration, i.e. the system, also extends to the calibre of staff who are employed. There is also the general feeling amongst Academics that if too much power is vested in the administration then the Academics, who represent the primary function, will have their personal fulfilment jeopardised and their charisma reduced. I believe that much of the fear of some Academics is due to their general feeling of uncertainty when confronted with matters outside their own speciality. The other main cause of insecurity in dealing with administration matters is their basic lack of knowledge of how management operates and what it means, and so when confronted with professional administrators they are at a disadvantage. These are very wide generalisations. We are fortunate in Strathclyde University in having considerable numbers of Academics who are prepared to collaborate and make useful contributions in Committees, nevertheless, anything which impinges upon academic freedom and on their primary role is an irritant.

.2 Administrators

A problem exists in a confusion which is common that administration and management are synonymous terms. They are not. I suggest that management is an executive process whereby an individual makes decisions, takes action and accepts responsibility, personally, for the consequences./

consequences. Administration on the other hand, may be regarded as a facilitating process being broadly concerned with the provision of information, data etc, and the operation of procedures which are usually clearly defined, to carry out policy which has been decided by the committee or body whose work the Administrator facilitates. As I have seen in other bureaucratic organisations in the public and private sector this lack of executive power, and in many cases the lack of desire for it, provides a 'sheltered' type of occupation whereby security can be assured by punctiliously observing the 'rules'. Therefore, if an Administrator wishes to shelter behind the system he can exist without having to show the same desire for executive authority and responsibility which is expected from aspiring good line Managers. The important question arising out of this is, "Does this type of administration induce the flow of the right calibre of candidates into universities?" To suggest that the answer is 'No' in a group like this, is to put my head on the chopping block. Nevertheless I must confess that in too many occasions the absence of real management incisiveness is too apparent. You may have excellent people at the top of the Administration but, unless they are supported by staff of the right calibre then the inertia in the machine certainly becomes frustrating, not only to the senior Administrators but to everyone with whom they come into contact. This includes academics, supporting staffs and trade unions. I am sure we can all draw upon our own experience and find examples of what I am referring to.

.3 Supporting Staffs

In the past these were characterised by friendly relationships with academic staff and in the case of technicians, a sort of 'personal assistant' relationship was common. Objective criteria were not used and many appointments were made because of the persuasive arguments advanced by accomplished senior academics (advocates). Shop stewards were not vociferous and altogether 'laissez-faire' was the order of the day. Things have changed as we all know. I think some of our problems arise from sheer inexperience on the part of the shop stewards and their uncertainty about how to fulfil their new role, except that it must be carried out aggressively! If this is so, then is it not a responsibility of management, whoever this may be, to aid the transition? I still believe that you tend to get the shop stewards you deserve. I must say that a lot of the frustration evinced by shop stewards is justified when one examines dispassionately the delays which can occur in the management decision process. Therefore any attempts to come to terms with the new attitudes, which I need not elaborate, must recognise that frustration, resentment and suspicion by unions, many of them due to management inexperience and ineptitude, must be overcome. To do this will call for a high order of tolerance and expertness and the acknowledgement by universities that they have been slow to adjust to modern industrial relations and personnel practices. The security of university jobs has been referred to above and when I joined the University it would be true to say in many cases the activities of supporting staff reflected the popular belief that universities were 'ivory towers divorced from the reality of economic life'.

4. Effects of New Legislation on Present Day Attitudes

The whole trend of recent legislation has been to liberalise the thinking of all employees and to encourage the drive of trade unions towards more involvement and participation in the running of organisations. Terms like 'joint consultation', 'involvement', 'participation' have become common place although their meaning in many cases is imprecise. Managers in the traditional mould have found it unpalatable to have to accept the changes in social attitudes and relationships in industry, commerce and elsewhere, whilst the unions, with the bit between their teeth and being supported by imprecise legislation, have attempted to move rapidly from the role of employee representatives to what they 'feel' is their right, namely equal partnership in the management process. The confusion, however, has been compounded by powerful sectional interests in some unions which are determined to overthrow accepted democratic precepts, for political ends.

5. Financial Constraints

After a period of rapid expansion in universities the financial constraints which have been operating especially over the past two years have caused us to introduce moratoria and other devices to restrict recruitment. Universities are still suffering from the implementation of the 'Blue Book' which was not supposed to cost more than 7%, but in the event was greatly exceeded. Little wonder, therefore, that attempts may have been made to replace technicians and other staffs at lower grades than those held by their immediate predecessors. Equally, it is not surprising that unions in resenting these moves want to have a greater say in the decisions. Since it is unlikely that universities will enjoy such favoured consideration in the future as has been shown to them over the past 10-15 years, we have reached the point where we must become more concerned with using management accounting techniques and all that this implies, in order to measure our success and to achieve control. This whole question of resource planning raises many difficult questions. I believe that universities have a clear moral/social and economic obligation in this direction. It follows therefore that in considering their allocations of scarce financial resources, existing criteria must be examined and replaced where necessary with new standards against which future growth and developments can be measured.

6. Effects of Expansion in Higher Education

Prior to the recent retrenchment in university expenditure, the allocation of very large sums of money to increase higher education facilities meant that automatically members of staff, both academic and non-academic, increased rapidly. When institutions were smaller, the 'administration' required relatively small numbers of staff, many of whom had long service and knew the bureaucratic procedures very well. To service the enlarged universities the expansion in administration had to take place rapidly from a restricted pool of potentially high calibre staff. Consequently it could be argued that some of the people employed in university administration today would find it rather difficult to exist in the hurly-burly of industry and commerce.

7. Management Controls

University organisation is unique. The only organisation in which similar problems are to be found is the hospital service. Both are characterised by the *prima donnas* who exist in comparatively large numbers, many of whom while enjoying world-wide academic reputations have no real management experience. The formal decision making progress in universities is cumbersome, depending as it does on a great many committees to make the policy decisions which are subsequently implemented by the administration. An interesting situation arises therefore - if, on the one hand you have academics who are inexperienced in management, and, on the other, administrators servicing the committees who may themselves be inexperienced managers - is it little wonder then that some of the decisions reached give rise to subsequent problems? Without in any way attempting to knock UCNS, the 'Blue Book' which we were saddled with is a very fine example of inexperience in one of the primary areas of management, namely industrial relations and personnel. Also, whereas in industry and commerce over the past 20-30 years a great deal of experience has been gained in personnel concepts, in universities it is only within the past five or six years that personnel management per se has become recognised as a function to be separated from generalised control by the 'administration'.

8. University Committee for Non-teaching Staff

UCNS is now in the process of re-examining its role, especially in regard to the relationships which are desirable between the centre, the regions and individual universities. We are fortunate in being professionally equipped at the centre for dealing with modern trade union negotiating practices and attitudes. Some of the regions are looking at their own structure and constitution. In the Scottish Region we have moved a long way towards establishing a cohesive group. We have appointed an executive committee, comprising one member from each university, which meets regularly and endeavours to formulate a Scottish point of view. We acknowledge that there are bound to be occasions when it is inappropriate to have a single view but nevertheless in time we hope the machinery for handling our regional industrial relations and personnel activities will lend strength at national and local levels in the conception, formulation and implementation of industrial relations policy. Having regard to the important matter of university autonomy, if attempts to reconcile this with national and regional policies are to succeed, considerable education will be required not only of senior academics but of the Courts of universities.

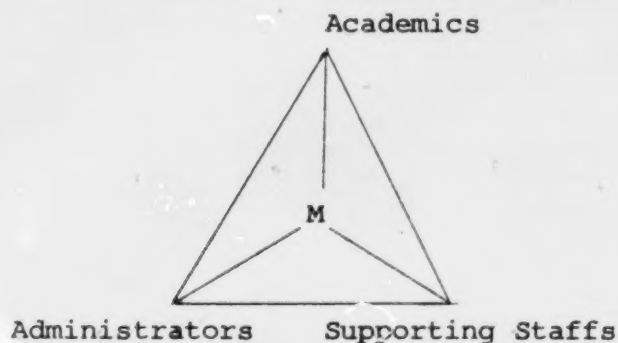
9. Technician Restructuring - Side Effects

The exercise threw into sharp relief the need for universities to move from the attitude of paternalism over non-academic staff to an understanding of modern personnel and industrial relation concepts. Associated with this is the problem of getting enough good recruits into university personnel management. Not only are the numbers of good potential personnel officers restricted, because of the high demand throughout the country, there is the current problem of availability of finance and salary scales to attract people of the right calibre into universities. It follows therefore that it is not possible to change rapidly from a process of unsystematic to scientific management. What concerns me is how little time, effort/

effort and money are being devoted to the establishment of criteria for making decisions. How much research into the special characteristics of universities is being encouraged and what is being done to bring together senior academics particularly, and the administration for a concerted attempt to move personnel procedures in universities into the twentieth century before we find ourselves shot into the rigors of the twenty-first century.

10. THE STAKEHOLDERS

These are the tripartite of: Academics, Administrators, Supporting Staffs and their common link is Management (M).



The diagram is not intended to be a triangle with the academics at the apex, supported by the other main groups, although some might argue that this would be appropriate. Rather, it is intended to show their interdependence. Nevertheless, academics represent the primary purpose of universities but without the others their efforts often would be futile and irrelevant. Also, without academics the others would not exist. The status, respect, acclaim and ultimately the growth and job security of all is a function of academic excellence. Academic excellence is personal to the staff. In industrial parlance, this output is derived from the 'directs' or the producers, or the operators. But whereas in industry the operator is at or about the lowest level in the hierarchy, in universities, professors and senior academics who generate the work, are at the top. In industry the 'directs' are subjected to a process of regular scrutiny, their performance is carefully measured to provide data on what they do, how they do it and how much they produce. The results are of primary importance in arriving at criteria upon which to base future plans and budgets for men, materials, machines, money and other resources. Obviously plans can only be as good as the data upon which they are based and in no case is this more true than when calculating the ratio of indirect to direct staff.

In universities the academics are the 'directs', but what do we know about how they generate work!? If we do not know how they generate work, how can we calculate with certainty our needs for administration and supporting staff. To me, this points to a primary area for research. I can think of many academics who would welcome this scrutiny if it is going to provide a more reliable basis for obtaining supporting staff than the present rule of thumb annual review and other ad hoc arrangements. Responsible academics would not/

not resent this intrusion, because those who are good enough have nothing to fear. Some will say that measurement of academics' work is unrealistic. I admit it would be difficult but should not be insurmountable. Indeed in terms of public accountability it is imperative that we look at our labour costs since they represent approximately 75% of our annual grant (Recurrent Grant 1976/77 £581m). Obviously this is not a short-term exercise and the implications are considerable but the problems are mainly organisational. The question which seems worthwhile asking is, 'Would we run our own business the way universities are run?'

11. The Future of Personnel Management

Personnel management and industrial relations affect everyone. To be successful:

The <u>Organisation</u> within which it operates must be right			
The <u>Respect</u> which it is accorded	"	"	"
The <u>People</u>	"	"	"
The <u>Money</u> which it is allocated	"	"	"

These are the essential requirements - you can will them but you cannot rush them. At present personnel management, where it exists, would seem to apply mainly to non-academic staff by the way in which it is constituted and located in the organisation. To me this seems wrong. It is true that according to Charters and Statutes, Academics enjoy different status from non-academics, but there are no distinctions in industrial relations legislation. When we are talking about the future of personnel management, it is mainly in the field of industrial relations that the major changes are taking place. Therefore the function of personnel management as distinct from the 'personnel office' is what we are concerned with.

It seems to me there are three stages: 1 The Short Term or Innovative; 2 The Medium or Consolidating; 3 The Long Term or Scientific.

.1 Short Term - Innovative

- .1 The role of Personnel Officer should be clearly established and recruits should be of the calibre to become Personnel Managers.
- .2 Personnel Officers should bring their expertise to bear within existing committees, serve them well, participate fully in deliberations and assist in the formulation of policy formulation rather than in the facilitating of it.
- .3 In those with whom you deal build up their confidence in your ability so that more and more, they will turn to you for guidance rather than for data.
- .4 Examine thoroughly existing procedures and practices and identify where you think they are inadequate for today's needs.
- .5 Anticipate changes. Initiate changes in relation to: social demands; legislation; training needs; joint consultation; participation; education, and recruitment.

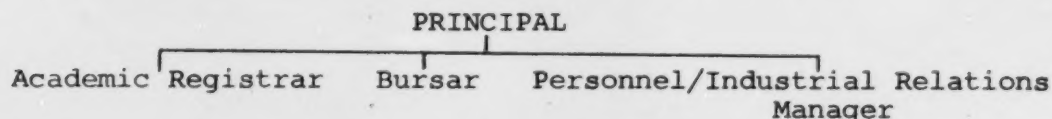
.2 Medium Term - Consolidating

This will involve investigation, research, consolidation, development of criteria. In other words build up statistics, start thinking about controls which are necessary and also start thinking about the future organisational structure to ensure that academic and non-academic staff requirements are coordinated through the one personnel office.

.3 Long Term - Scientific

This is when the full requirements of Manpower Planning are introduced. This phase can only be achieved when adequate criteria relating to work content have been identified. From these labour requirements, manning budgets can be forecast relative to the future developments in the university.

In some respects, personnel management in universities is where it was in industry about twenty years ago. If the personnel function is going to be consolidated in one office then staff must have status and enjoy the same standing as academics, they must be professional and they must ensure greater control over industrial relations practices in regard to dealing with the trade unions. Universities are big business. The function must be removed from the anonymity of the Secretary, Registrar, Bursar functions. The status of the Personnel Manager must be equivalent to that of the Academic Registrar or Bursar and so a simple chart of the administration hierarchy at top level would appear as follows:-



This new tripartite could become a powerful Executive and at the top would be complementary to three primary committees, i.e. Court, Senate, Staff Policy Committee.

The status of the existing two Principal Officers would not be eroded. Indeed by centralising personnel and industrial relations activities under the Industrial Relations Manager, they would be freed from much of the contentious deliberation which at the present tends to result in them living under excess pressure. The need for change should result in further clarification of responsibilities of the three top executives and would facilitate conception, formulation and implementation of policy. In turn this ought to reduce some of the time wasted in committees by academics and others using their time inexpertly to achieve these aims. By clarifying their respective roles communication ought to improve and thinking time gained for prescribing standards of performance i.e. management.

12. Summary of advantages to be gained from centralising the personnel function covering Academics and Non-Academics.

Internal

- .1 An overt move to more executive type Authority/Responsibility.
- .2 Control by exception - fewer committees and better use of their time by separating conception and policy formulation from the day-to-day detail of implementation.

- .3 Better communication with all staff - academic and non-academic and consistency in treatment.
- .4 An improved base for developing participation.
- .5 Careers prospects would be improved and high-calibre staff would be attracted.
- .6 Clarification of roles and spheres of the 'tripartite' of senior officers.
- .7 Greater professionalism.
- .8 Speeding up of decisions.
- .9 For supporting staff - clarification of lines of communication, an improved understanding of the management structure and where the decision-making power lies.

External

- .1 The development of a larger number of 'professionals' in the field
- .2 UCNS
 - .1 A strong Central executive - improved collaboration between 'experts' in universities and Regions
 - .2 The development of a National cadre from which to draw national negotiators
 - .3 Improved communication with the centre could improve decision making
 - .4 Reshape UCNS at national level as a meaningful counter to the national officers of the Unions
 - .5 Strong and meaningful Regional groups.

13. CONCLUSIONS

- .1 The development of personnel functions is an exciting challenge.
- .2 You have a tremendous educational job to do.
- .3 I am sure the academics would welcome the changes - once they are convinced of the advantages to them. They will give up some of their autonomy if they are convinced by demonstrable actions that the people responsible for the Personnel function are of the right calibre. I am offering a prescription for hard work and suggesting you should prepare yourselves for the challenge to exploit the tremendous opportunities which can open up to you.

Topic: Problems Relating to Contracts of Employment for Academic and Related Staff (Part of Theme C)

Contributed by: J R Akker (AUT)

The AUT is very conscious of the increasing demand being placed upon Universities by the current trend to have a far greater number of laws affecting the employment of staff. The AUT considers that it has a very important role to play in ensuring that adequate information is given to all those concerned in Universities. The AUT has already made available to its Local Association a practical guide on the Employment Protection Act and allied legislation and a series of Schools have been held up and down the country with the aim of giving as much information as possible on the changes which have or are about to take place. Many of you will already have seen a copy of our Guide to the Employment Protection Act, since it has been widely distributed by University Authorities.

The subject of the paper relates to contracts of employment for academic and related staff. It is of course now largely accepted that the term "academic and related staff" not only includes teachers but Administrators, Librarians, and, in fact, all staff who have their pay related in some way to academic staff. A most important group in relation to the new Employment Law is Research staff, since they are often employed on a limited or short-term contract. It is hoped that this paper will not only interest CUA members from the point of view of their professional interest as advisors to the University but also in the dual role as employees of the University themselves.

The contract of employment is an extremely important document. It may help consideration today to say why this is so.

1. It tells employees what is the correct pay for the work undertaken.
2. In the event of termination, nothing can be settled without reference to the contract.
3. It details what conditions are to be associated with the work.

It is an essential part of the contract of employment that the law can be used against whoever breaks it.

It is an important feature of a contract of employment to appreciate that it is not solely a matter which is determined between the employer and employee. In University employment as elsewhere, collective agreements between trade unions and the University are increasingly affecting what is in effect the contract of employment. In this respect where Administrative staff are concerned, the AUT is embarking on a plan to improve certain basic conditions affecting these members.

Over a period of time now, statutes have been increasingly affecting contracts of employment. The Contract of Employment Act 1972 is of particular importance, particularly when taken in relation to the Trades Union and Labour Relations Act 1974 and the Employment Protection Act 1975. Other Acts also have had a significance in this field, including the Equal Pay Act, the Redundancy Payment Act, the Sex Discrimination Act, and the Health and Safety at Work Act.

A very complicated situation has arisen by this spate of legislation and it might be helpful, therefore, if some information was given firstly on what a contract of employment has to contain by law.

The following are some of the matters which have to be specified in a contract :

The names of the employer and employee. Details of the wages and rates for the job. Hours of work. Holidays and holiday pay. Job title. Whether the employee is covered by a Superannuation scheme. Any disciplinary rules or a document referring to such rules, specifying the person to whom an employee can apply if dissatisfied with the decision, stating whether previous service counts as continuous service.

This is not a comprehensive list of what is now required under the law but relates to the main conditions that apply.

There have also been some changes regarding what is the minimum period of notice to which an employee is entitled. University practice, though, would seem to suggest that they are already complying with the minimum requirements of the Employment Protection Act. Of particular interest to Universities might well be the recent change that part-time employees working for 16 hours or more per week, are now entitled to get a contract statement.

A lot of attention has been given by Universities to the current legislation as it affects unfair dismissals and redundancy. Much concern has been expressed in University circles about the right of employees under legislation to proceed to an industrial tribunal to claim that an action by the University to dismiss them has been unfair. The AUT has circularised, in its Bulletin of April 1976, a detailed statement about the new laws as they affect employees on short-term contracts. We would therefore commend to you that you refer to this statement when considering matters relating to the employment of staff who are on these contracts.

For the purposes of today's discussion, the current position may be summarised as follows. Any member of staff serving under a contract of employment of less than two years' duration and who has six months service is able to take a case before a tribunal to claim unfair dismissal. It is not possible for the University to obtain the waiving of any rights by an individual to proceed to a tribunal and even if the member of staff is wrongly asked to give up this right, it will have no force before a tribunal. Where a contract for two years or over exists, of a fixed-term nature, i.e. the beginning is known and the date of ending of contract is known, the position is somewhat different. A person, providing that he has not waived his right to proceed with a claim for unfair dismissal, can still proceed to an industrial tribunal and in those circumstances a University would have to show that fair dismissal has in fact taken place. Where a waiver clause is agreed by the individual then he would not be able to proceed with a claim for unfair dismissal. However, there are some exceptions to this. For example, if the University said that it was terminating the contract before the end of the period determined by the fixed-term contract, then a claim could still be made. In addition, if the contract of employment allows for either party to terminate the contract by notice, then the waiver clause is of no avail since technically it is not a fixed-term contract.

It can be seen therefore that there is a complex situation which has arisen as a result of the new laws. The AUT has taken the view that it is generally in opposition to the use of waiver clauses and has therefore asked its Local Associations to negotiate with their University or institution to see that they do not insist on such clauses. Having said this, though, we hope of course that the majority of cases will be satisfactorily dealt with without resort to the need to go before an industrial tribunal.

There is one other area which might also usefully be drawn to your attention today. This concerns the redundancy provisions contained in the Employment Protection Act. In the event of any redundancy, consultation must take place with the recognised trade union which is responsible for representing the staff concerned. The employer must provide the trade union with the reasons for the redundancies, the number involved and the methods by which the redundancies are to be effected, e.g. first in, last out, etc. There are more detailed procedures where more than 10 redundancies are involved. There are other areas which are creating headaches for some large employers. One particular area relates to women employees. However, as far as we can ascertain, maternity leave in Universities is far better than the minimum laid down by the Employment Protection Act, and the right to return has also not been a problem, as far as we can see. Other changes brought about by the Act particularly apply to time off with pay for work connected with trade union and public duties.

No analysis of the contract of employment law would be complete without some attention being given to the fact that the new rights have been given concerning the enforcement of terms and conditions of employment. Under present legislation there have always been certain rights open to trade unions to seek re-application of nationally agreed terms and conditions before the Industrial Arbitration Board, but these existing rights have now been added to. Trade unions, at some unspecified date, will be able to submit a claim where the terms are less favourable than the general level of terms and conditions of employment in the district to the successor of the Industrial Arbitration Board, the Central Arbitration Committee.

Undoubtedly, with the application of any new law or sets of laws there are bound to be difficulties associated with the introduction of same. It is also undoubtedly true that there will be some modification of the current position in the light of test cases taken before the Courts. It is hoped, however, that this paper has shown that there are a number of specific areas in which Universities will urgently have to review the contracts of employment which they give to academic and related staffs. Many Universities have started this process. It is hoped, too, that as well as giving you some information as advisors to Universities, it has shown to you, as employees of Universities, the new rights which you have obtained under the current employment law.

Topic: Relations with Academics (Part of Theme D)

Contributed by: Professor D W Elliott (Newcastle)

Many persons who have continuing relations with an administration feel that, while ideally an administrator is a man who enables one to do what one wants to do, in practice he is a man who prevents one from doing what one wants to do. The justness or otherwise of this feeling is beside the point; if the feeling exists, tension is found. Academics are little different from other people in this respect, except that hitherto they have had consolations denied to the 'clients' of other bureaucracies. These consolations are or are thought to be withering away, leaving the relations, and therefore the tensions, between them and their administrators exactly the same as those between other men and their administrators.

2. According to a traditional view, university administrators are ministerial officers existing in order to allow academics to carry out their academic function as each academic thinks fit; to offer an expertise in formulating the academic policies required; to conduct relations with such sectors of the outside world as intending students; to maintain a warmed cleaned repaired physical environment for academics to think in; to pay for supplies ordered by academics; to replenish academics' personal bank accounts at regular intervals, and so on. But not to get in the way of the main academic purposes (teaching and research) or of what are seen as crucial ancillary purposes, such as appointing and promoting staff.
3. Even when this traditional view was dominant, some tension existed. At no stage has an individual academic, even an autocratic head of department of the old school, been able to do exactly as he wished. Even in some golden age which never was, when money was unlimited, the framework in which he worked was set up by others - other academics, no doubt, but nevertheless others. What he taught, whom he taught, where he taught and so on down to such details as where he parked his car was subject to rules binding on him. Moreover money never was unlimited, and the competing claims of his fellows could frustrate an academic's plans just as surely as some positive rule. The administrator who broke the news more or less gently that some cherished scheme was still-born might (if he were lucky) escape being cast as the actual

author of the schemer's misfortune, but could not expect to avoid the traditional lot of the bearer of bad tidings. He could only bear the ensuing coolness in relations with the fortitude natural to one of his profession.

4. But in recent years the position has become more critical. Resources have been much more scarce than formerly, and one result has been to inhibit expenditure on and require the setting of priorities in such mundane areas as the provision of telephones and the allocation of stationery supplies, areas where any kind of rationing used to be unknown. There has been a tendency in the central academic government of the University to police such apparently non-sensitive areas by vesting discretions in an administrator, a reasonable tendency except that it brings the administrator into an eyeball-to-eyeball confrontation with exigent academic customers. Moreover many of the rules which the administrator acts on and actions which he takes are seen to be dictated by outside sources. The U.G.C. not only imposes what are rules in everything but name, but also requires returns, which in turn require that certain activities need to be conducted in some particular, perhaps inconvenient, way in order to facilitate those returns. Moreover again, most Heads of Departments are aware that many regulations and practices concerning staff are dictated either by Unions or by a central bargaining unit acting for all Universities, or by national legislation.
5. The result is the rapid erosion of the traditional comforting reflection that the academic community made the rules and can, if the situation becomes unbearable, alter or relax those rules and control the intrusive administrator. The position begins to approximate to that found in the N.H.S., where the administration, although nominally there to serve, is felt to have developed its own values and interests and to be controllable, if at all, only by some remote London-based machine basically out of sympathy with the aspirations of the workers in the service. The truth of this feeling is not really in point; it is the growth of it which bodes ill for all of us, academics or administrators.
6. It bodes ill because it threatens to end the traditional free and easy partnership between the two groups. Indeed the process is merely one facet of a wider progression towards what might be called the industrialization of the University. Universities used to be quite different from other large work structures. Now they are becoming more similar and may end by being virtually indistinguishable. This painful process is probably inevitable. Certainly, as to the facet we are concerned with, realism compels the view that things will get worse. University affairs will become more heavily administered than hitherto, and the academic feeling of being oppressed by the administration will become stronger (and, it must be said, truer) as time goes on. The feeling will not be confined, as formerly, to the neurotic or blatantly self-centred individuals in the academic community.

7. To the extent that some of these wounds are self-inflicted, response must come from the academic community itself. In point are such matters as the obsessive demand for absolute fairness in absolutely everything, which is producing quite absurdly complex procedures for promotion, confirmation of probation, grievances and the like. Complex procedures need heavy administration, and self-denial in these matters by academics will pay dividends. Other matters are the responsibility, not of the whole academic community, but of the academic government of the University - for example, the vesting of discretions in administrators rather than in committees. This is done for convenience. It is no doubt inconvenient, and may be thought by some to be a prostitution of talent, to have a battery of trained intelligences focused on such bread and butter matters as the allocation of telephones; but at least this prodigality avoids the odium which will otherwise attach to the luckless administrator burdened with the discretion. Administrators ought to be astute to draw attention to these considerations during the inception of both kinds of procedures.
8. On the residual matter of additional administration imposed by financial stringency or irresistible outside meddlers, a continuing campaign of education is called for. Administrators should lose no opportunity of branding the true author of the offence. For example, no statistics should ever be collected for the mandarins of the U.G.C. or Whitehall without quoting, in discreetly perjorative terms, the Imperial rescript which has engendered the chore. This is a palliative, no doubt - not a solution; but then few University administrators, I trust, are afflicted with the modern delusion that a problem is, by definition, a difficulty with a solution. A continuing search for further palliatives, and a recognition that the plaudits of a grateful clientele will for ever elude him, is the most that can be urged on today's University administrator.

Topic: Relations with Academics in Committees (Part of Theme D)

Contributed by: I H C Powell (Salford)

- 1 Since this paper is a contribution to a theme on the relationships between administrators and academics and students, the committee context to which most reference is made is one where the members are academics. It is to be remembered however that on many committees there are members who are students and, in the Council area, lay members of the University.

- 2 There is a view that the proper role for the university administrator as committee secretary is essentially a passive one: he should faithfully record decisions and see to their implementation, he should act only as a reaction to a specific stimulus from his committee and should speak only when invited to do so, being careful to confine himself to statements of fact unembroidered by speculation. It is doubtful whether this was a true reflection of reality in days when universities and their administrative staffs were smaller and their business less complex and more leisurely than today. Experience suggests that even those administrators who professed such a view for public consumption diverged from it in practice. It is a healthy thing for universities that generally nowadays there is a more open acknowledgement of the need for the administrator's role as committee secretary to be an active one. This changed attitude has resulted largely from the expansion of the last fifteen years which has seen the emergence of university administration as a recognised profession on a considerable scale. During that time there has been a heavy increase in the demands placed on administrators by their institutions and a commensurate response in the skills, techniques and attitudes which administrators have brought to bear on their work.

- 3 The changing perception of the committee secretary's role is well illustrated by comparing the almost incidental, although not ungenerous, reference to his work in Aitken's mid-60's book on university administration⁽¹⁾ with the detailed coverage given by Moodie and Eustace⁽²⁾ nearly a decade later. Two quotations from the latter work seem to highlight this role:
 - (a) 'Many officials quite clearly see that their job is to ensure that decisions are taken by the methods and people who, within the university, are supposed (by the charter, or more frequently by council or senate decision and by custom) to take the decisions. Much of this is of course a simple routine business, although not necessarily for that reason one easy to do well, but here too there is a positive task to be performed. In this area above all perhaps may be found officials taking the important initiatives within particular universities.'

 - (b) 'There is another, more positive, aspect to the officials' role as facilitators, and that is the formulation of proposals for consideration. Thus a document on the administration prepared within one of the new universities says that 'the central administration ... requires a core of professionally qualified administrators and planners to give expert advice

as well as to execute university policy'. As Sir Kenneth Wheare told the Franks Commission, 'most of the initiative for conducting the business and bringing it up comes from the Registrar' who was expected to offer opinions and suggestions. The Commission, after commending this exercise of initiative by the registrar, continues: 'similar behaviour should be expected from the other officials ... they should act as advisers, free to speak and suggest, but not to vote on committees'. Sir Philip Morris, emphasizing the same point, told the Commission that 'for an administration to operate successfully, in addition to having the duty of serving, it must also feel itself responsible for formulating proposals for consideration and must have ready ways of obtaining due consideration for such proposals'. No one with any experience of university administration would want to quarrel with these propositions.'

The above observations refer to the overall function of the administrator, but they find their expression most obviously in the committee situation.

- 4 In most universities committee servicing is not the particular task of a special group inside the administration with exclusive responsibility for this function. It is rather one facet of the duties of most administrators in the institution. In this context the widely-held feeling of administrators that they are not only the servants of the formal authoritative bodies of the University and their committees but also have a responsibility to the whole academic community can give rise to situations of potential conflict. A number of examples may be cited:
 - (a) The administrator must constantly be aware of the need to exercise discretion in day-to-day intercourse with members of the University over certain knowledge to which he is privy by virtue of being a committee secretary. At the same time he may well feel an urge to be as open and frank as possible in the furtherance of the good working relations which are vital to an administrator's effectiveness in the university world. The tendency of most universities to classify too much information as 'confidential' for too long does not help in this situation.
 - (b) There is a danger of the administrator identifying too closely with his committee over against other academic interests in the University or against other parts of the administration of which he is a member. This can be a particular problem when working in a devolved situation (eg faculty or school secretaryship) and may result in the administrator being caught in a crossfire between his committee chairman and his professional superiors.
 - (c) When in committee the views of two groups of academics or of academics and students diverge strongly on a given issue the secretary may find himself in an exposed middle ground. Maintenance of a strict neutrality in such circumstances may well be difficult if one or other of the parties seeks the secretary assistance: we are all familiar with the loaded question presented in the form of a simple request for clarification of precedents, established policy or agreed procedures!

(d) More and more frequently the secretary has to bring to university committees information, requests and 'advice' from outside bodies (UGC, CVCP, DES etc) which threaten to impinge on the concepts of academic self-determination. It is all too easy for the secretary to be seen in such a situation as the emissary of outside influence attempting to constrain the University rather than acting as a bulwark in defence of its autonomy. In some cases an administrator may judge that an externally-generated proposal will be of long-term benefit to his institution even though in the short term it seems to impose a discipline which will be unpalatable to some. If he decides to advise his committee accordingly he needs to be sure of his conclusions and able to give strong reasons for them. This is an area where an administrator can have a considerable influence on the wellbeing of his University and he should weigh his advice accordingly.

5 It is important for a number of reasons that there should be a measure of homogeneity of style and practice amongst those acting as committee secretaries in a university. One good reason is the confidence which it can help to create in academics so that they feel that their affairs are being handled in an ordered and competent way and not by an uncoordinated group of individuals, each of whom seems free to make his own rules. Another is that the discipline imposed on administrators by working to a common code fosters the sense of institutional cohesion and purpose. It should also be remembered that the acquiring of skill and experience in committee work will be important to the development of most administrators and that junior staff need guidance in this regard.

6 Many of the points in a code of practice for committee secretaries will be either mundane or included because of their relevance to a specific institution rather than for their general applicability. It is suggested however that any code of practice should include advice in the following areas which can affect the relationship between administrators and academic members of committees which they service:

(a) In presenting information to committees the secretary should endeavour to be as concise as possible and not merely to produce a large amount of unprocessed fact or opinion which members may find hard to digest. In trying to be precise however the secretary should not omit any salient facts or arguments which might result in an unbalanced presentation. Committee members have a right to expect that they will be given as full a picture as possible on which to base their decision. Any feeling that the secretary is not behaving with proper impartiality can quickly lead to acrimony and a breakdown of confidence.

(b) A good working relationship between a secretary and a chairman is important to the proper functioning of a committee. The chairman must be in a position to take action on behalf of his committee between meetings if the situation requires it. Sound advice from the secretary on these occasions is a test of his competence and its acceptance is a measure of his influence. The occasional chairman may be inclined to behave as if he were chairman, committee and secretary all in one. It may fall to the secretary to stand out against such a chairman on behalf of the rest of the committee, particularly between meetings.

- (c) There are varying opinions about the verbal contributions which a secretary should make at committee meetings. The secretary should be prepared to intervene in a debate if he judges it necessary in order to remind the committee of pertinent facts (eg previous decisions, terms of reference, University policy, activities and interests of other relevant committee or group). The timing and manner of a secretary's contributions should however be such that he does not give the impression of acting like a member of the committee. This is a danger which is more likely to be present when the committee is small and the proceedings and atmosphere relatively relaxed.
- (d) The secretary must be prepared to offer information and constructive advice to members of the University who may be preparing to submit business to the committee. He is an interface between his committee and the University at large and his actions will be taken as reflecting the temper of the committee. He must be prepared to explain its policies and procedures to potential clients and to help them put their proposals in a form which the committee will find appropriate. This process can confer considerable influence on the secretary but can provide instances of the conflict between committees and the whole academic community in which the administrator may find himself involved (see section 4 above).

- 7 Any analysis of the committee situation has to be made against the background that committees are human devices to deal with human affairs. A committee secretary does well to remember that what may seem to him to be just one more item on one more agenda may have a very strong effect on the interests of one or more members of his committee and that their behaviour will be governed accordingly. Many decisions which a secretary formulates initially and finally implements will have a more direct impact on the day-to-day lives of academics than on his own.

I H C POWELL
March 1976

References

- 1 Robert Aitken, Administration of a University (University of London Press, 1966)
- 2 G C Moodie and R Eustace, Power and Authority in British Universities (George Allen and Unwin, 1974)

Topic: Computer Based Management Information Systems (Part of Theme E)

Contributed by: S McGlennan (Strathclyde)

1. It is not uncommon to find articles in learned and not so learned journals on the topic 'Management Information Systems' suitably illustrated by a triangle (or, for the 3.D addict, a pyramid) or a number of triangles usually standing solidly on their base but sometimes precariously balanced on their apex. These, variously, illustrate the management structure, the flow of the information and so on; they further can be used to illustrate the concept of 'horizontal integration' and 'vertical integration' of such systems.

Being, by nature, somewhat suspicious of the purely theoretical thesis it is somewhat pleasurable to report that in fact these diagrams do represent what is most effective in practice; however, this pleasure is considerably reduced when one considers how frequently the concepts have been ignored and the paths to reliable usable computer based management information systems have been littered with craters dug by enthusiastic computer technicians and made deeper by untutored administrators in their attempt to build their systems without paying any heed to the fundamental prerequisites, but concentrating only on the short term excitement (and that is best a passing emotion) of making 'the computer' do something which either the administrator thinks he wants or that the computer technician thinks the administrator thinks he wants.

2. What then is a Management Information System? Perhaps if we take the words one at a time in no recognisable order we might begin to reach some common understanding.

A System is a formalised series of events regularly carried out to achieve a defined objective (my definition!).

A Management System is one which seeks to enable those charged with control or direction of an organization to achieve its functional objectives and to make decisions.

3. The difficulties arise when considering the word 'information' and immediately we must make the distinction between data and information.

Data and information are not necessarily synonymous. Data are the raw materials of information. Information consists of a number of given facts (data) which, when taken together, form a meaningful picture of a given state of affairs. For example, lists of students in registration number order are data, whereas further listing of those same students by age, sex and subject are information. Information can also contain inferences drawn from data. We can infer certain things from data - e.g. that certain types of students are less likely to do well than others, (although this may only be discernable by a process of statistical correlation).

4. Systems are concerned with the formal processes for providing information. An Information System consists of the organisation of the information flow in such a way as to meet the needs of users in the most economic manner, commensurate with speed and accuracy. Such a system will comprise rules governing the collection, storage, processing and retrieval of data and the way in which information is to be disseminated. It is therefore more than a computer system, although it may include computers as one of the information-handling tools. But it will also include the definition of the contact points between various sections and department of the organisation.

Of primary importance in the design of an Information System is the determination of the needs of the people who will require information, i.e. management. The ends must be determined before the means. Having established the needs, the means must be determined whereby management information is supplied in response to those needs.

5. What is the role of the computer? Why are MIS and computers inextricably mixed up? We know that the computer is only a tool which can carry out processing; it can take raw data and transform it into useful information. It is not the only way of doing this and it may often be less effective than alternate means. Computer-based systems are not systems which take place only on the machine but are a combination of clerical procedures and computer programs designed to perform a set of well-defined objectives. Such systems can support all levels of management and the greatest benefits are reaped when they are designed to do just this.

While it is true that Management Information Systems have successfully been installed without computers, it is very rare in practice. Today Management Information Systems naturally demand the use of computers and implies

1. integration of several individual systems (see App. 1)
2. centralised storing of records (magnetic tape)
3. re-definition of control and 'ownership' of data
4. harmonization of data definitions and files (the emergence of data dictionaries is evidence of this) resulting in data base systems technology.

These are the reasons why I believe the computer is crucial to success in this area.

Each of the above cannot just happen. They must be consciously planned from the top. No one in my experience will surrender his 'ownership' of data or be subject to the rigours of integrating his 'own' system without fairly positive direction; especially as it is done in the name of a Management Information System, the information from which he is unlikely to use or be allowed to use.

Thus/

Thus the institution of such a Management Information System has these prerequisites

1. careful planning (and acceptance of and commitment to the plan)
2. sufficient resources (men, money and machines)
3. user involvement (recognising that the user may not get anything out of it!)
4. the will and the power to make it work.

Given all these, one will readily understand why there are not a lot of good Management Information Systems about!

6. How does all this affect Universities?

Traditionally, the organisation of university administration consists of a number of departments, each with its specific executive function. Invariably each department will be found to have its own 'Information System', although it may not be recognised as such. In most cases the systems will have just 'grown' - it will not have been formally planned as a system. In such cases, on the one hand, duplication in record keeping is almost bound to occur as between one department and another; and on the other hand, there may be serious gaps in the information because no one person has an overall view. Even where a computer has been employed there has been a tendency to develop computer systems in isolation for each of these departments. Very often the computer system has done little more than repeat what would normally be done by manual methods. Because of the increasing size and complexity of decision-making the necessity for co-ordinating information is becoming realised. It is essential to ensure that there is a system of information flow between departments and to recognise that there is a commonality in the data involved.

7. How will Management Information Systems develop in Universities?

It is convenient to regard the areas of activity within a University as 'Five S's'; Students, Staff, Services, Space and Spending. Up to now the computer systems in universities have mainly been geared to the activities of a single department or area at a time, and at three different levels of the Management Structure (see Appendix 2)

1. operational management, ('transaction' processing)
2. middle and higher management, ('control' processing)
3. top management (processing for planning).

Sometimes there has been a vertical integration between the three levels, e.g. in a Finance Office we may find an integration of payment of staff and creditors (transaction), budgetary control statements (control) and expenditure forecasting (planning). However in every university there will be some need to integrate data from some or all of these five areas in order to provide corporate management information. (Horizontal integration). For example data on Staff, Students and Space are necessary in order to determine requirements for new courses.

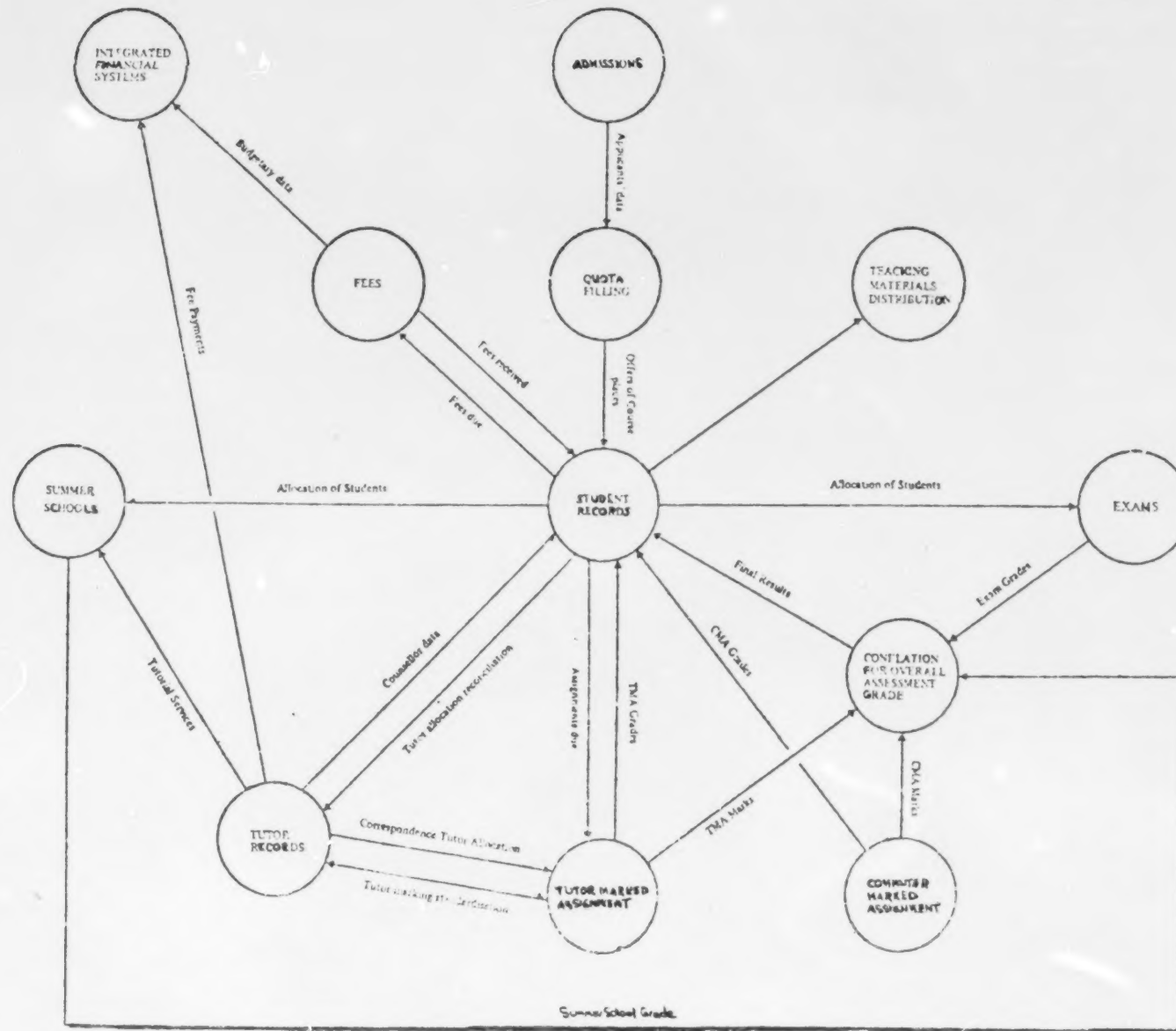
8. What are the Advantages and Disadvantages of
Computer-based Management Information Systems?

Advantages

1. Speed of Processing
2. accuracy and consistency of performance
3. large storage capacity, allied to security
4. ability (by program) to process the same raw data for a variety of reasons
5. ability to provide management reports as by-products of the automation of routine clerical purposes
6. ability to provide special reports on request, e.g. by file interrogation
7. advantages of economy of scale.

Disadvantages

1. Dangers of mis-use; the computer may not necessarily be the most effective method available in particular circumstances
2. inflexibility - although note impact of recent software developments, such as data bases
3. vulnerability - strikes, power failures
4. extra discipline in maintaining manuals and programs
5. dangers that staff at lower levels may have their work load increased without obvious compensations
6. dangers of technical barriers between computer specialists and users.

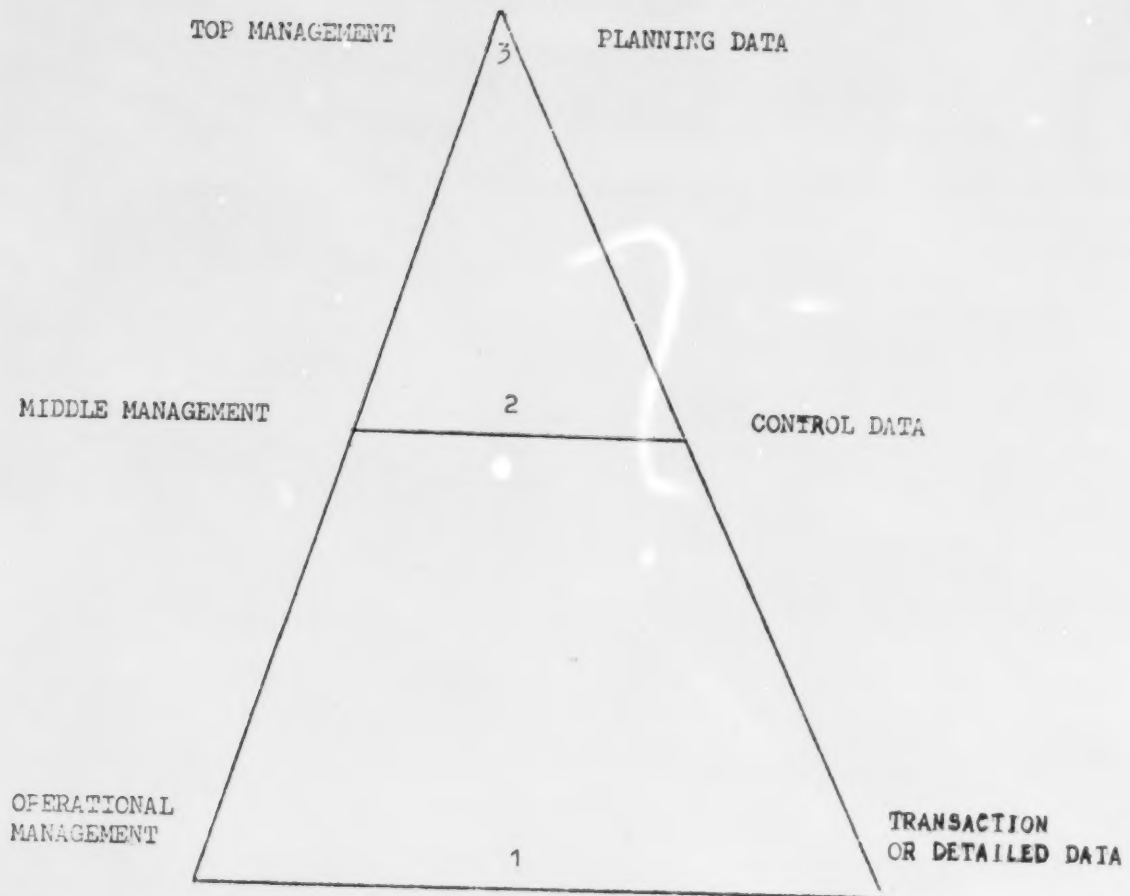


Each circle represents a system or a suite of several programs and data files.

DIAGRAM ILLUSTRATING A SET OF INTEGRATED SYSTEMS

APPENDIX 2

THE PYRAMID STRUCTURE OF MANAGEMENT



Topic: Budgetting in a Period of High Inflation (Part of Theme F)

Contributed by: R M Mawditt (Bath)

In preparing for this Session, I found myself in the dilemma of not being certain of the term "high inflation". Inflation has, of course, been rapid and rampant over the last four or five years and certainly high relative to any quinquennial period most of us have experienced. However, if an academic, administrator or technician member of staff was asked whether or not a 20% wage award was high, it is likely that she or he would remark that it was no higher than any other and not as high as some. If, subsequently, the prices of commodities go up by 15%, the worker will state that that is extortionate and the reason for this year's high inflation. It is, therefore, better to abandon the philosophical approach and accept that high inflation persists and return thoughts to how to budget for it.

Next, I framed my thoughts over the period of the last two or three years and how we had tackled the problem under those experiences. Certainly, this provides ample and adequate case material on how to budget in a period of high inflation; but what of the future for the way ahead in Bath, in a period of continuing high inflation and also uncertainty in the fashion of financial planning and changing accounting techniques. This second point has to be considered following the implications of the Government White Paper on the Economy and Public Spending, the consequences of the death of the quinquennial system and the Government's intention to impose cash limit accounting.

I will, therefore, endeavour to explain the budgeting process in my University as it was, as it is and as it is likely to be over the next few years.

In the quinquennial cycle, the financial planning process in simple terms has been calculated from the basic unit, the equivalent student number. From this it is determined what the academic staff requirements would be from discipline to discipline on determined staff/student formula. Next, the support staff necessary within the academic departments can be determined and this has been on the basis of past experience and particular future needs. The budget for consumables, that is the departmental supplies, travelling and other expenses, is calculated on an ESN times established norm for each discipline. This would give a resulting total of academic recurrent grant. The next stage is to determine the non-academic costs and these have been determined in proportion to the academic resources necessary and the self-financing aspects of a University's affairs, that is to say, the halls of residence, refectories, business activities.

Having determined what the quinquennial plan is to be and how the University Grants Committee have allocated resources to meet this plan, the University

determines, on an annual basis, its financial plan for the coming session. This would normally be done in the February/March period in order that staff will be in post by the beginning of the following session. In ideal times, a review of the budget may be effected once, or even twice, but certainly not more than this. The budget would be predicted either by taking the University's domestic index for inflation or by using the Tress Brown indexes. I would normally exclude academic salary costs which would be supplemented in full.

Again, in days gone by, the budgetary process would allow latitude for savings to be made on salaries and wages costs by placing the fully established figures in the estimates and thereby effecting savings when posts are not filled. On the revenue side, it is likely that more students would register than had been predicted and interest raised on working capital would be in excess of that assumed. This would all lead to a more healthy position than was envisaged at the beginning of the year. At no stage in University development has supplementation from the University Grants Committee been received in any constant fashion, but nevertheless nearly always provided was a larger sum than was anticipated in the budgetary process.

This was the way in which estimates were processed in the halcyon days of the sixties. Over the last few years, with resources becoming scarce and inflation ever-creeping, budgeting became more scientific if, indeed, economics can be determined to be scientific. It has become necessary to review budgets more regularly and to effect economy if resources are not sufficient to meet the necessary demands. For example, wage awards which have not been supplemented, viz. for technical and clerical workers, have demanded resources far in excess of those either anticipated or included in the estimates. Unless there has been an accumulated surplus, it has been necessary for universities to introduce economy campaigns on services such as telephones, heating, lighting, etc., and during a period of severe restraint to freeze academic support staff posts. With the scarcity of resources, universities have introduced new processes of efficiency such as the appointment of Supplies Officers, O & M units, and sophisticated computer systems. Finance Officers have become very cost conscious in the way in which payments to creditors are made, how the discounts, both for educational and cash purposes, are implemented, how cash flow and investments, even overnight, have brought about a concern for the use of cash and the substantial sums which can be earned in interest. Self-financing projects, which have traditionally built up large sums under sundry debtors, and business aspects, where overheads have not been collected in full, have also been improved to become profitable or, at least, break even. It would not be untrue to say that the university system has indirectly benefitted from the financial squeeze with improving efficiency. Budgeting has, therefore, become not simply a matter of regulating expenditure within a predicted allocation, but using one's cash resources wisely and effecting economy.

And what of the future? 1976/77 and beyond will see a distinct change in the provision of funds for universities. The quinquennial system is dead, long live the ??

It appears that for two or three years at least the universities will rely on an annual budgeting and allocation process. The Government has announced that

the universities will be subject to allocations on a cash limit basis with no supplementation. Budgets will therefore have to be fixed precisely and adhered to. Established budgets, which account for some 60% of all university recurrent expenditure, will have to take account of unfilled posts and delays in re-appointment of staff expected to retire or leave service. Predictions for student recruitment are more easily determined and support staff not as rapidly recruited as in the days when a one for one academic staff to technician ratio applied. Indeed, with the Industry Acts protecting the employee to the extent that even short term research posts may have to be more closely controlled, established budgets must be constantly controlled by the professional administration set up for these matters. If the universities are not able to contain their expenditure within resources available within this cash limit period, over-expenditure will mean ultimate penalties in resources received from the University Grants Committee, expensive overdrafts and the Exchequer's wrath. However, until somebody comes up with the model purporting to perfect budgeting in future periods, especially when a grant is announced far too late to recruit new staff, there is likely to be a period of considerable uncertainty in university estimating and the likelihood of a number of preliminary budgets before a settled situation can be assured.

R.M. Mawditt
University of Bath

Topic: The Future of Higher Education in the U.K. (Theme A)

Contributed by: J Clinch (Open)

Discussion of the future of higher education in the United Kingdom without reference to the supply of and demand from qualified school leavers, of the projected numbers of 'full-time equivalent' students, of the output of graduates, of the manpower needs of society or of the costs, benefits and effectiveness of different institutions would have been unthinkable a few years ago.

It is perhaps a reflection on the changing economic and political context of higher education that the conference theme should therefore have been concerned mainly with qualitative rather than quantitative changes in higher education.

It started at the micro level by looking at institutional developments in curriculum and assessment. It continued by reviewing the influences of the European Economic Community and of the Council of Europe on higher educational development in the United Kingdom. The similarities and contrasts between the public sector of higher education and the Universities provided an appropriate introduction to the final session on the question of University autonomy. The papers reproduced here do not attempt to give a comprehensive review of the future of higher education in the United Kingdom: they do however provide valuable insights on some of the directions that higher education is likely to take. The discussions that followed each presentation, which are summarised in this introduction, tended to underline this.

(1) Curriculum Changes

The move towards modular degree courses, greater emphasis on inter-disciplinary studies, broader based degrees, and more flexible methods of assessment will tend to add to the complexities (and cost) of higher education. In some cases it will lead to organisational changes within the institution and may fundamentally alter the administrators role. To quote Professor Becher "..... These (curricular patterns, and assessment procedures) are not only important issues in themselves - they have the added advantage of lying very close to the interface between institutional structures and academic processes..... This interface..... marks off the no man's land which spans the territory of the administrator and that of the practising academic". The costs of innovations of these kinds are bound to come under increasing scrutiny and as a result their originators are likely to become even more concerned about finding ways of not making them explicit. Conversely the increasing pressure on resources may in itself be a catalyst for curriculum change with greater emphasis on inter-departmental or even inter-institutional co-operation aimed at reducing unit costs.

(2) European Influences

The current influence of the European Economic Community on higher education in the U.K. is slight- its potential influence is great. As Dr Padley points out " The development of higher education in the Member States is a subject to which politicians and administrators at the European level are likely to give increasing attention". The conference was invited to speculate on a scenario of possible developments emanating from Brussels - regional education centres providing all post secondary level education; rationalisation of course provision (e.g. French degree courses only taught in France?); greater mobility between centres etc. Questions to Dr Padley displayed a healthy scepticism (or was it naivety?) about the extent to which the European Economic Community could legislate on matters affecting the educational policies of autonomous University bodies. It was observed that on questions of entrance requirements, length of courses, equivalence of standards and degree nomenclature United Kingdom universities display a remarkable capacity for doing their own thing. Was this likely to be any less of a problem on a European basis?

The Council of Europe (with its 18 European member countries and four observer countries) is not only more broadly based than the European Economic Community but it has also a much longer experience of co-operation in the field of higher education. Its aims are specific, with the emphasis being on the establishment of principles and guidelines on matters of common concern and information exchange. Dr Klisch underlined the importance of academics as well as government officials being involved in the policy formulating bodies of the Council. The discussion perhaps left the participants with a slight unease about the need for initiatives by both the European Economic Community and the Council of Europe in the same field (e.g. equivalence). It was noted that the influence of the older on the newer institution included the reprinting by the latter of material published by the former - spelling mistakes and all!

(3) The Public Sector

What must impress the University administrator when being informed about the public sector of higher education is the complex web of external bodies from which the individual institution must seek approval for its developments: the Local Education Authority, the Regional Advisory Council, the Regional office of the Department of Educational Science, the Council for National Academic Awards or other validating bodies.

Mr Hall illustrated the way in which the public sector institution must adjust to these constraints. Was collaboration between the public sector institutions and the universities feasible? The potential for such collaboration appears to be wide - joint use of facilities, rationalisation of low student population courses, exchange of staff : but the reality limited. The difference in funding, in the approach to costings and salary structures and the absence of institutional or individual incentives all tend to militate against collaboration.

(4) University Autonomy

The last opportunity for the Universities to regain "a significant part of their autonomy" is the establishment of strong regional bodies in which the universities, the polytechnics and other institutions of higher education join together "to order their affairs to their mutual advantage". This was the thesis put forward by Mr Atkins. He cited the influences of Governments employment legislation, of the UGC of the CVCP, of the UCCA and of the proposals of the Schools Council, as all contributing to "crumbling University autonomy". To counteract these tendencies each university must put its own house in order - the universities must be seen to make efficient use of their facilities, to avoid wasteful competition, to further good teaching and above all to maintain their qualitative role in higher education. But will strong regional bodies do anything to bolster the autonomy of the Universities? In discussion it was argued that the Universities would be under even greater financial control and would be in danger of domination by the public sector institutions or any new regional body. One set of limitations might replace another.

(5) Conclusion

The objective of the sessions was essentially self-educational : the aim was to inform, to listen and to question. If a common theme does emerge it is the likelihood of a move in the direction of regionalisation and greater inter-institutional collaboration, but even that is highly speculative. One observer did, however, hazard the view that all the major trends would place even greater demands on the University administrator. We can all take comfort in that.

DJC/MF
24.6.76

Topic: The Case for Decentralisation

Contributed by: R D Nimmo (Brunel)

In these difficult times of scarce resources Universities have been forced to reconsider the effectiveness of their current practices in utilizing resources. This in many instances has brought to the forefront the issue of devolving power to the faculties etc. It is therefore not surprising to find this a popular topic at this year's conference. The discussion was spread over two full sessions and tended to concentrate on the practice at two universities where decentralisation has been tackled in a big way.

Participants were circulated with papers describing the situation at Brunel and Sussex Universities and copies of these papers are available for anyone interested in pursuing the matter. In both institutions it was apparent that devolution was introduced in a very modest way and allowed to expand as members of staff became confident of its success over former practice. At Brunel the start was made by trying to devise an acceptable method for determining the teaching staff establishment. This resulted in a formula based on full time equivalent student numbers which could be openly evaluated annually to allow for changes in the University's development. Although the original formula has been modified in the light of experience the general concept has been accepted by all interested parties. The success of this inspired senate to consider applying the formula to the university budget and to devolve financial decision-taking to its most effective level, i.e. departments. On this basis departments are given an allocation of funds to cover their respective established teaching staff together with a general allocation to cover other heads of expenditure. The only real constraint imposed on departments is that recurrent (short term) funds must not be used for long term commitments, such as established staff otherwise they can vire between heads. Not all heads of expenditure have been decentralised but the current arrangements give departments a great deal of flexibility and force them accept the responsibility of their decisions.

The responsibility for decision taking would appear to be the cornerstone of any devolved system as is evidenced also by the experience at Sussex. Devolution at Sussex was undertaken to facilitate long term planning and their initiative would appear to have been vindicated. Quotas are allocated to main spending areas according to formulae laid down by The University's Planning Committee. The basic units at Sussex would appear to be larger than those at Brunel but otherwise the systems are very similar. Brunel, like all other universities, have experienced financial problems during the past few years but are confident that the devolved system made it less difficult to accommodate the constraints imposed by the Government without any one area feeling unfairly treated. Sussex, on the other hand, feel that because their system was based on expansion, some changes may now be necessary to allow for a steady state situation. It will be interesting to see how both institutions are able to develop their respective systems to meet the changing scene as portrayed in the Government's latest pronouncement on public spending.

There was no strong support for total decentralisation in any single institution since some services would not function effectively unless some form of central control existed. However in the climate of devolution central services must, of necessity, change their current attitudes and convince their users that their service is the best available and not rely on the monopoly that they may have enjoyed in the past. Ideally the services should be made self-supporting but like everything else the approach must be made gradually.

CONT'D.....

Some interesting information arose in discussion about Cranfield Institute of Science and Technology and its progress in decentralised operation. Because of the nature of this establishment a large proportion of its income arises from tuition fees and research grants although DES do provide a basic grant. The DES grant is devolved by a simple formula comparable to Brunel and Sussex but departments are allowed to retain their share of the income from all other sources. Departments are then obliged to pay for services used including overheads, and each service operates a self-financing basis. From this it would appear that Cranfield are further advanced than any other institution and perhaps the universities could learn a great deal from its experience despite the differences in sources of income.

The general conclusion of the discussion would appear to support a move towards decentralisation but than any such attempts should be approached cautiously. The greatest advantage would appear to be the devolution of decision making to its most effective level rather than a means of trying to economise on resources. Such economies are likely to arise but they should not be considered as the main reason otherwise the system could be doomed before its initiation.

Topic: The Development of the Profession - a unified Administrative Civil Service

Contributed by: J F D Lauwerys (Imperial College)

The group agreed that a discussion of this issue could only be regarded as 'kite flying' at this point in time but that the idea was well worth considering and while there were obvious disadvantages to the proposal there were also some strong advantages. For the purpose of the discussion it was assumed that the proposal implied the establishment of a unified service for university administration on the same pattern as the civil service. It was assumed that this service would be established as a central body, probably under the auspices of the Committee of Vice Chancellors and Principals and preferably not by the University Grants Committee. As with the civil service, someone recruited to university administration would then be selected by and recruited to this central service and as and when a post was available such a person would be appointed to a particular university. This university would have a major say in the appointment of a particular individual and it would be responsible for the "rations and discipline" of the particular member of staff. The University administrative service would be responsible in collaboration with the individual university, for staff appraisal and training and for liaising with other universities when a suitable new job opportunity became available for that member of staff. It would not follow that a particular member of staff would be forced to move jobs but clearly the most gifted and ambitious would wish to do so in order to further their careers.

This outline was accepted as a working proposition and the relative advantages and disadvantages were then considered in this context. It was agreed that there were likely to be better career prospects for career administrators under this scheme and it was noted that there was likely to be less recruitment of those from other professions into university administration. The need for uniform conditions of service would lead to a 'levelling up' between universities and might in due course lead to better salary prospects. It was agreed that both basic and in-service training was likely to be considerably better in both availability and quality and there would probably be a higher degree of professionalism in university administration.

The possible disadvantages of the proposal would include the fact that universities would lose their idiosyncratic approach in terms of the role, number, title, etc., of administrators and that universities as a whole might in consequence become more alike to their general disadvantage. Additionally the reduction in the recruitment of outsiders to university administration could be disadvantageous and it was noted that the development of a unified administration service could lead to the eventual absorption of university administrators into the civil service with the consequent implication of greater Government control.

In the course of the discussion it was suggested that there were considerable differences between university administrators and civil servants. The former have a prime loyalty to an individual institution in a way that civil servants do not. It was recognised that the need for uniform standards and procedures which existed in the civil service and particularly in the Armed Forces, required the frequent exchanging

of personnel. This need for standardisation was far from being a requirement in Universities and indeed could be regarded as contrary to the purpose of universities. Certain members of the group were willing to argue that the whole proposal should be taken even further and that university administrators should be completely absorbed into the civil service. It was suggested that civil service standards were higher (as demonstrated for example by the selectivity of their graduate intake), that their general level of competence and training were better and that undoubtedly their salaries and conditions of service were superior to those of university administrators. There was, however, a feeling that the academic staff in universities would strongly resent the development of a unified service. Such a proposal would be seen as a threat to individual autonomy. As a counter argument it was noted that if the universities collectively (perhaps through the CVCP) controlled the university administrative service, then the universities themselves would still be at the helm.

Some of the group felt that one of the strengths of university administration was its ability to attract those from outside professions. The contrast between university administration and the civil service in this respect was suggested as being very favourable. Every university required a different kind of person for each particular job and the main problem was to match the right person to the right job and in this respect it was felt that current selection procedures were not very professional. In conclusion the group felt that improved selection procedures for those appointed to university administrative posts together with greater mobility of experienced staff might remove many of the arguments for a unified service. Certainly it would be beneficial if all vacant posts in university administration were advertised externally. Notwithstanding, it was felt that the proposal to establish a unified administrative civil service for universities was worthy of further serious and careful examination.

Topic: Where have all the Students Gone?

Contributed by: R B Behenna (Exeter)

Cicero, in one of his more acid speeches, once commented, 'When one soothsayer meets another one, I wonder that he doesn't laugh', a remark that is not inappropriate to the present circumstances of our educational planning. But, strictly, our question should rather be 'Why didn't the students come', since the high spots of recent educational planning, in particular Planning Paper No. 2 (1970) foretold unbelievable wealth of students, 835,000 in 1981, no less. Then successively, as our economic climate chilled and froze, and as national demand and supply of student places began to draw perilously close, there came successive contractions of the planning projections: down to 750,000 in 1972, 640,000 in 1975, and now most recently, only 600,000. It is sufficiently clear that while the balance of 235,000 (between the highest and present projections) actually existed in the sense that they had been born, and indeed were already entering secondary education, they were never potential university entrants, simply because they did not want to be, and as the 'trend' towards increased university demand ebbed unexpectedly away, rapid revisions of planning figures towards more realistic totals had to be made. Why, then, did this enormous extra demand never materialise?

In a Report on the attitudes of school leavers to continuing education and employment (commissioned by the DES), Professor Gareth Williams, of Lancaster University, suggests that a point of " 'saturation' may have been reached for the social classes or personality types that are naturally predisposed to favour higher education." In other words, the end of the 'trend', and this is substantiated by the relatively static ratio of those seeking university places as a percentage of their age group (18-19% since 1970). A closer examination of the parental occupation of successful applicants reveals that what slight increase there has been in those from professional and managerial homes (which might have been expected to rise sharply) has been compensated by proportionate reductions in those from working class homes, the category which had been regarded as untapped potential, and on which much of the expansionist planning had been founded. Universities, polytechnics and colleges of education must now tighten their belts, partly because of the earlier overprovision of resources, and partly in anticipation of the decline in the size of the age group, which begins in 1983 and continues at least well into the 1990's. The factors which may have influenced potential university applicants are no doubt complex, obscure,

and often subjective, but in an analysis of what went wrong, some broad identification of causes can be made.

Most school leavers were quite realistic enough to appreciate that one of the principal advantages of a university education was the prospect of highly-paid employment, but all around them they saw examples of school-fellows entering lucrative but unskilled jobs while graduates, occasionally with higher degrees, were no longer able to command the excellent prospects and good salaries that such qualifications had previously ensured. At least in part, this was because the massive production - even over-production - of graduates in the late 1960's had provided the major employers with enough future senior managers to see them through for many years, particularly when the beginning inflation had already made it clear that there were lean times ahead. So what was the purpose of going to university, if you ended up doing the same job, at the same pay, as those who didn't? Or worse, couldn't get a job at all, because your qualifications entitled you to more pay than the job was worth. And simple economics came in again through another door: students have made much - with some justification - of the inadequacy of their grants. There are undoubtedly cases of hardship, especially among those whose parental income entitles them to less than the maximum. The effect of inflation, not then corrected in the means test, was that restriction of maintenance grant began to apply, when the parental income was, after massive pay awards and inflation, effectively not very large at all and support for the indigent student became difficult or impossible, and there developed an increasing tendency to take a job at the earliest opportunity, intending to study later either part or full-time. The extent of this new trend cannot be assessed, since only when it had ceased would it be possible to assess the numbers who totally rejected higher education and, of course, it will not cease, because of the Open University, and other improved facilities for part-time study, which must be accounting for some of our missing numbers.

It has unfortunately happened that during the same time, public esteem for universities has taken a beating, and an appreciation of their aims, their objectives, and the valuable contribution which they make to education and thence to the national economy has been obscured by the image of the students,

and occasionally of the staff, as idle and unruly squanderers of taxpayers' money. Of course, we all know that a minority of students will over-express their social consciences, and an even smaller number is interested in political agitation. But because good students working and playing hard are not 'news', the image of the militant is that which is commonly purveyed and believed. There can be no doubt that this has had an effect. Discussion with students reveals that many knew of contemporaries at school who, though academically able, either decided not to apply for a university place, or were dissuaded by parents - in terms of varying strength - from doing so. This ground will not easily be recovered, and it is no doubt partly from consequences of this loss of confidence that financial investments in the universities has been substantially reduced, without public protest.

Nor indeed can the universities themselves be wholly exonerated, since at a basic level, they have not been offering what an educationally changing climate seeks from them. No-one would seriously propose that they should follow every whim of student demand: science yesterday, medicine today, social science tomorrow. That way would lie academic anarchy. But some recognition should be made of radical changes already effected at schools, both in curriculum content and diminution of selective element. The well established Honours courses may be increasingly hard put to it in the future to find sufficient numbers of applicants with the same intensive scholastic grounding as those on which their high academic reputations have been established, and the probable nature of any substantial change in the present school examinations system is more likely than not to exacerbate this trend.

Topic: Senior Common Rooms and Staff Restaurants

Contributed by: Shane Guy (Liverpool)

Twenty three representatives from eighteen institutions attended either, or both, of these sessions. Participants were invited in advance of the Conference to put forward points they considered worthy of particular examination, but no very strong response was received. Accordingly, a questionnaire was prepared and circulated, to provide information as a foundation for the discussions, and which would also hopefully highlight some common difficulties. Ten questionnaires were returned in time for inclusion in a summary paper for the first part of the discussions, and eleven for the second.

The following papers were prepared for discussion at the meeting.

Part I

1. A summary of the response to the questionnaire relative to membership, location, facilities and services, opening hours, finance and discernable trends.
2. A case history of a Senior Common Room from 1965/66 to the present session, detailing membership, both absolute and as a proportion of University membership and use.

Part II

3. A summary of the response to the questionnaire relative to catering - profit and loss, vacation problems, management information and techniques employed, methods of operation, discernable trends.
4. A financial model for a specimen Senior Common Room run on wholly independent lines, including a main catering service, over the three years 1973/74 - 1975/76.

The question posed as the theme of the first session was quickly disposed of by the group defining common rooms as generally falling into two groups - those consisting basically of the common room with perhaps an ancillary snack or drinks bar run either by the university or volunteers, and those of a more substantial nature offering their own catering, and sometimes accommodation services, as well as a number of other activities. The more modest type of common room survives, and indeed thrives. The intensity of its activity is generally dependent upon the interests of its committee and the amount of practical help they are able to provide. In some cases economies have been introduced in order to maintain subscriptions at a minimum - these economies usually being the introduction of a self-service coffee and tea arrangement, with at least one common room opting for vending machines.

With regard to the larger self-contained type of organisation, the future was far less assured. In recent years a number had substantially reduced their areas of activities, and were beginning to resemble more closely those with less extravagant forms of provision.

In most cases a number of trends may be discerned.

1. A substantial reduction in the amount of catering activity in recent years.
2. A substantial increase in labour costs associated with catering, even though this be at a lower level of activity.
3. A change in emphasis from main meals service to snack meals.
4. A declining interest in membership exemplified in the following ways:-
 - a) The failure of junior members of staff to join Senior Common Rooms as a matter of routine.
 - b) Resignations from common rooms when subscriptions were raised.
 - c) Pressure at those few universities where membership of the Senior Common Room is a condition of appointment to the university, for this condition to be removed.

Universities were taking a number of steps to remedy these difficulties. They were mostly of an orthodox nature including :-

- a) cut backs in catering staff;
- b) reductions in services;
- c) the greater use of volunteers, particularly committee members, to provide certain services which had been a staff responsibility at other times;
- d) an increasing emphasis on the Senior Common Room as a provider of commercial services, the income gained therefrom to be used as a financial crutch for day-to-day operations.

It is as impossible to generalise about common rooms as it is about Americans, Scotsmen, or universities, however, it is generally clear that Senior Common Rooms are becoming more informal, less important as a factor in university life, more inclined than in the past to give up independence (for example in return for the university underwriting their catering deficits) and as a mirror of the fact that up to 50% of their membership work at home during vacations.

LIST OF TOPICS INCLUDED IN THE 1976 CONFERENCE PROGRAMME

(a) Specialist Groups

Administration in Academic Departments
Central Administration Services
Committee Servicing
Estates and Buildings
Examinations
Faculty Administration (excluding Education and Medicine)
Faculty Administration - Education
Faculty Administration - Medicine
Financial Accounting
Information and Public Relations
Internal Audit
Management Accounting
Management Services (including Computing/Data Processing and O & M)
Personnel (Academic and Non-Academic)
Publications
Research Grants Administration
Superannuation
Student Accommodation and University Catering
Student Records
Undergraduate Admissions
Vice-Chancellor's Offices

(b) Themes

Future of Higher Education in the U.K.

- Part I - Recent and Prospective Developments
- Part II - Influences on U.K. Policy - EEC Policies
- Part III - Influences on U.K. Policy - International Fashions
- Part IV - The Place of Universities in the Higher Education System
- Part V - The Place of Universities in the Higher Education System

Academic Planning

- Part I - Forecasting student numbers
- Part II - Staff:Student ratios and their use
- Part III - The Capacity Survey and its use
- Part IV - The steady-state University
- Part V - Integration of Planning - a General Symposium

Effect of Legislation on Personnel Administration

- Part I - Recent Legislation in the employment field
- Part II - Future of Personnel Management in Universities
- Part III - Problems relating to Contracts of Employment for Academic and Related Staff
- Part IV - Disputes - procedures, problems and solutions
- Part V - Worker Participation in Management

Relations between Administrators and their Clients: Staff and Students

- Part I - Relations with Academics
- Part II - Relations with Academics in Committee
- Part III - Relations with Students
- Part IV - Relations with Students in Committee

Use of Computers in University Administration

- Part I - An Elementary Introduction to Computers
- Part II - Computer Applications in University Administration - Finance
- Part III - Computer Applications in University Administration - Student Records
- Part IV - Computer based Management Information Systems in Universities - a System in Operation
- Part V - Computer based Management Information Systems - Organisation and Development.

Accounting in an Inflationary Era (in 4 parts)

(c) Discussion Groups

Senior Common Rooms and Staff Restaurants
Amateurism v Professionalism in the field of Student Counselling
Career Prospects for Administrators
The Case for Decentralisation
Selling in a buyers' market - where have all the students gone?
Contract out your problems - Catering, Printing, Maintenance, etc.
The development of the Profession - a unified 'administrative' civil service
Clinical v Academic Priorities in Medical School Administration
Student Residences

(d) Information Sessions

USR
SSRC
CVCP
ACU/IUC

APPENDIX II

List of Papers received but not included in the Proceedings

(a) Specialist Groups

Management Accounting - S T Hughes (Kent)
Vice-Chancellors' Offices - Mark Pargeter (Keele)
Faculty Administration - Medicine - N Shott (Newcastle)
Administration in Faculty/School/Department/Institute of Education
Dr T J Mead (Southampton)
Publications - Penelope M Sibbick (Warwick)
Superannuation - S W Kuhlmann (Cranfield)
Information and Public Relations - D T Bamber (Liverpool)
Management Accounting - L Ricketts (Sussex)
Student Records - J B Wadley (Bath)

(b) Themes

Use of Computers in University Administration
An Elementary Introduction to Computers - J Atkins (Southampton)
The Accounts System - W Platts (Oxford)
Student Records - R W Prince (Edinburgh)
Effect of Legislation on Personnel Administration
Disputes - Procedures, Problems and Solutions - R Hayward (UCNS)
Employment Protection Act 1975 - J E Barrie (Law School, Strathclyde)
Worker Participation - J Pearson (Industrial Society)
Accounting in an Inflationary Era
University Accounts and Sandilands - I D Trickett (Bath)
The Future of Higher Education in the U.K.
Influences on U.K. Policy (1) - EEC Policies - Dr John Padley
(Liverpool)
Influences on U.K. Policy (2) - Council of Europe Policies -
Dr Rupert Klisch - Member of the Education
Directorate of the Council of Europe)
The Present and Future Roles of the Polytechnics - R F Hall
(Polytechnic of North London)
Academic Planning
Forecasting Student Numbers - Mrs C M Firth (DES)
The Accommodation Masterfile/Capacity Record - Christine Challis
(Leeds)
Relations between Administrators and their Clients
Relations with Students - C H Longworth (University of Essex
Students' Union)
Relations with Students in Committees - Eric Newman (Open University)

(c) Discussions

Career Prospects for Administrators
The View from Below - J S von Berg (Edinburgh)
Career Prospects for Administrators - M G de St V Atkins (Lancaster)
The Middle Man's View - J F D Lauwerys (Imperial College)
Career Prospects for University Administrators - Alan Jones
(Liverpool)
Clinical v Academic Priorities in Medical School Administration -
K Lockyer (Middlesex Hospital Medical School)
Allocation of Resources within a University - Professor C Bodsworth (Brunel)
Notes on Devolution of Budgetary Responsibility to Separate Units -
Bruce Claxton (Sussex)